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VOL. XXXVIII.

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'No man, who hath tasted learning, but will confess the many ways of profiting by those, who, not contented with stale receipts, are able to manage and set forth new positions to the world: and, were they but as the dust and cinders of our feet, so long as in that notion, they may yet serve to polish and brighten the armoury of truth, even for that respect, they were not utterly to be cast away.'—MILTON.

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ART. I.—1. *Speech of* Mr. James Wilson, delivered in the Legislative Council, Calcutta, March 3rd 1860.

2. *Speech of* Mr. Samuel Laing, delivered in the Legislative Council, Calcutta, February 16th 1861.

3. *The Theory of Foreign Exchanges.* London: Effingham Wilson, 1861.

THERE is a story told of a farmer who had a considerable deposit in a local bank of whose stability whispered doubts had reached his ears. He went immediately, and, without hinting any reason for his demand, withdrew the whole of his deposit. He received the amount *in notes of the suspected establishment.* As soon as he had got outside of the office-door, he put his head in again, and with a smile and wink of triumphant shrewdness, exclaimed, 'Ye may break now if ye like.' *Se non è vero, è ben trovato.* The story is not a bad illustration of the ignorance which prevails widely, and in higher strata of society than the 'heavy clay' formation, on the subject of money in general, and paper money in particular. Familiarity with the coins which pass continually from hand to hand, or with the paper representatives of metallic currency which take their place, to a greater or less extent, in Europe, America and even in India, has not, certainly, bred contempt, but it has prevented most people from considering the nature of a circulating medium. Few care to enquire into familiar objects which are constantly before their senses or their minds; and fewer still are able to judge correctly of such objects. Hence it is that no subject, perhaps, in the whole range of political economy, is so little understood, popularly, and so warmly discussed by adepts, as money, and paper money more especially. We are far from attributing to the readers of the *Calcutta Review* ignorance so crass as that of the

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farmer in our anecdote.* We trust, however, that it will not be considered a work of supererogation, if, before examining the plans which have been proposed for an Indian paper currency, we state as briefly as possible the established principles on which such a system should be based; and where great authorities differ, give their opinions and arguments, so far at least as to render intelligible the grounds of difference.

The experiment now being tried so cautionsly in India deserves the closest observation from all who are interested in the welfare of the country. We shall point out hereafter several circumstances which render the introduction of a paper currency into India different from the same step in other countries. But we shall first consider, generally, the nature, advantages and dangers of paper money, with especial reference to bank-notes, its commonest form; and after applying the principles, thus established and illustrated by the history of the Bank of England and by the paper currencies of other European countries, to the present condition and requirements of India, we shall examine the schemes successively proposed by Mr. Wilson and Mr. Laing.

Paper money, 'properly so called' is defined by Mr. McCulloch to be 'paper made legal tender, and not legally convertible into gold, or anything else, at the pleasure of the holders, or at any given period.' In the following pages we do not use the expression in this restricted sense. We apply the terms to paper used as money, whether legal tender or not, whether convertible into metallic currency unconditionally and on demand, or on certain specified conditions and under restrictions as to time and place, or altogether inconvertible. With this preliminary definition, or rather explanation, we proceed to enumerate and discuss the advantages derivable from the substitution of paper for metallic currency.

The disadvantages attendant on the use of a metallic circulating medium serve, in some degree, to point out the advantages of paper money. The principal are 1st, fluctuation in value of the metallic standard; 2d, expense of maintenance; 3d, difficulty and expense of transmission from place to place, owing to its weight and bulk. With regard to the first of these we shall only remark at present that the value of convertible paper fluctuates with that of the metallic currency into which it is convertible: while the value in exchange of inconvertible notes (if constituting the sole

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* It is said that some of the Irish peasantry in 1798 used bank-notes as wadding for their muskets, with a view to *break the banks*.

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medium of exchange) is solely dependent (*ceteris paribus*) upon the ratio which the quantity in circulation at any given time bears to the amount in the market of the commodities whose interchanges they effect, and fluctuates with their rates.

The second disadvantage attendant on a metallic currency—the expense of maintaining it—is obviated by the use of paper money in its stead. The cost of the material of which the latter is composed is inappreciable in comparison with the expense of keeping up a gold and silver currency. The real wealth of a country being dependent upon the amount of its net revenue, and money being, as Adam Smith pointed out, the only part of the circulating capital of a country the maintenance of which diminishes its net revenue, it follows that whatever lessens the expense of maintaining the fixed capital *and* money increases the wealth of the society. What the expense of keeping up a metallic currency actually is, may be more readily appreciated by considering a few figures. Estimating the British currency at £50,000,000, the annual interest upon this sum at 5 *per cent*, would amount to £2,500,000; to which should be added at least £500,000 yearly, for wear and tear and loss by shipwreck, fire, &c. The substitution of paper, therefore, for the whole of the fifty millions would be a clear gain of three millions annually to the country, making a trifling deduction for the intrinsic value of the paper employed. But France affords a still stronger instance of the expense of maintaining a metallic medium of exchange. Necker estimated the amount of her circulation at 2,200,000,000f; Peuchet, lower, at 1,850,000,000f. Taking the mean of these two estimates, the interest at 6 *per cent*, would amount to 121,000,000f, yearly; to which adding 20,000,000f, for wear and losses as before, we arrive at a total loss to the country of 141,000,000f, yearly, or £5,640,000.

The expense of maintenance consists of two distinct parts. The one is actual, being the cost of replacing the coin lost in various ways with new coins, the material of which must be purchased with other commodities at its market price, which, like that of most other articles of commerce, depends ultimately on its cost of production. The other element of expense is virtual, being the amount which the country loses, or rather fails to gain, by keeping for domestic purposes a valuable commodity, for which a comparatively valueless article may be substituted, not only without disadvantage, but with positive benefit. 'By using paper instead of gold,' says Mr. McCulloch, 'we substitute 'the cheapest instead of the most expensive currency: and 'enable the society, without loss to any individual to send abroad

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'all coins.' The precious metals which, while used as currency, add nothing to the country's wealth but rather diminish it by the amount necessary to compensate wear and loss, when set free by the substitution of paper are sent to other countries in exchange for commodities which increase the wealth, comfort and happiness of the country which imports them. Adam Smith illustrates this substitution by comparing it to an improvement in machinery—the difference in cost between an old machine and a cheaper new one is added to the circulating capital of the owner. But his still more happy illustration, adopted by Mr. Mill, is his comparison of a 'judicious system of banking,' which is equivalent to a judicious substitution of paper of various kinds for the precious metals, to 'a wagon way through the air,' saving land for purposes of agriculture, but facilitating traffic as much as, (or more than), the ordinary road which it supersedes.

Of the third disadvantage of a metallic currency, wholly obviated by the substitution of paper; little need be said. The risk, difficulty and expense of transmitting large sums in gold are obvious enough, a thousand pounds sterling in gold coin weighing 21lbs Troy. But where, as in India the currency is silver and the distances great, and danger of robbery and expense of carriage and escort considerable, the weight of the ordinary circulating medium becomes a matter of very serious importance. £50,000 in British silver coin would weigh over five tons. An ordinary country bullock-cart would convey with difficulty, at the rate of ten miles a day, 40,000 rupees. On a smaller scale we all feel, every day, the inconvenience attending a silver currency.

'A currency is in its most perfect state,' says Mr. Ricardo, 'when it consists wholly of paper money, but of paper money 'of an equal value with the gold which it professes to represent. 'The use of paper instead of gold substitutes the cheapest in 'place of the most expensive medium, and enables the country, 'without loss to any individual, to exchange all the gold which it 'before used for this purpose for raw materials, utensils, and 'food; by the use of which both its wealth and its enjoyments are 'increased.' Taking this passage as a text, we shall briefly discuss some of the points involved in it, before considering the dangers and disadvantages to which the use of paper money is liable.

Paper is used to economize money in several different ways, to enumerate which will be sufficient. Bills of exchange, transfers of bank credit, cheques, and promissory notes obviate the necessity for the actual employment of the precious metals in mercantile

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transactions. All these are included in the 'paper money' of the passage quoted above; but it is only with the last of them that we shall be occupied, except incidentally, in the following pages. Convertibility, that is the capacity of being exchanged for the amount of metallic or quasi-metallic currency which they profess to represent, is essential to the usefulness of bills of exchange and cheques. We shall see that for the purpose of carrying on all internal monetary transactions of a society, inconvertible notes may be sufficient; though in this case the term 'promissory' is scarcely applicable. Bills of exchange and cheques, therefore, are employed instead of the current circulating medium of the country, whatever this may be. What this best may be—whether metallic, or consisting of notes, or of notes *and* coin—is the question upon which we are at present engaged.

It will be observed that Mr Ricardo makes it essential to an ideally perfect currency, not that it should be paper convertible to coin at the pleasure of the holder, but that it should be of equal value with the amount of precious metal which it represents. How inconvertible paper may be kept up to this standard we shall see presently. That a paper immediately and unconditionally convertible, at the pleasure of the holder, can never fall below that standard is obvious. Even the restriction on convertibility nominally imposed on Bank of England notes—that they are necessarily changeable into cash only at the particular office from which they have been issued—does not in practice impair their perfect convertibility. But there are two other cases possible—a mixed currency, consisting of metal and inconvertible paper; and one composed of inconvertible paper only, or with a metal only as subsidiary, in the same manner as silver and copper (or bronze) are now used in the currency of the United Kingdom. To understand these two cases we must examine the principles on which the value of a currency estimated in other commodities depends.

Money—using the word in its most general sense—is only useful for effecting the exchange of other commodities. Except for saving the time and labor necessarily attendant upon barter, its importance and its value are insignificant. Money, therefore, and all other commodities are complementary in value, whether we consider the whole commercial world or any particular country. The value of all commodities actually for sale in the commercial world and the value of the means by which their transfer in sale is effected, must vary inversely. Supposing, then, gold to be a universal standard of value, any increase in the quantity of gold coin in circulation, unaccompanied by

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any corresponding increase in the quantity of commodities offered for sale, must lead to a proportionate fall in its value—in other words to a general rise of prices in gold of other commodities.

What would thus obviously be true of gold if it were the sole and general medium of exchange is necessarily true of the circulating medium existing at any particular time in any country. 'That an increase of the quantity of money raises 'prices and a diminution lowers them, is the most elementary 'proposition in the theory of currency, and without it we should 'have no key to any of the others.' Prices in any country depend upon the proportion which the amount of commodities offered for sale bears to the quantity of currency in circulation, whether this consist of the precious metals, or of paper, or of both.

But this simple principle, like many others on which the science of Political Economy is based, is only strictly applicable to a theoretically simple state of things. When we proceed to apply it to the complicated system of modern commerce, limitations, restrictions, and explanations must be taken into consideration. Some of these we must mention.

First, then, we must remember that as it is only that part of any particular commodity which is actually offered for sale that affects the price of that article, so it is only the money actually in circulation which affects prices generally. The banker's reserves, the miser's hoards, the secret store of the French peasant, and the stockingful of sovereigns stowed away in the Irish farmer's chimney, can have no influence upon prices until they are actually brought out for circulation.

Again: as increased quantities of gold drawn from the mines do not necessarily involve a fall in the value of the metal, (or, in other words, a universal rise of prices)—and of this fact we have had ample proof in the negative result of the enormous produce of the Australian and Californian mines—so increase of amount of currency does not of necessity imply a general rise of prices in any particular country. And the reason in both cases is the same. Increased trade requires increased means of every kind for carrying it on. There can, we apprehend, be no doubt that the fall in the value of gold, due to the immense quantities produced in recent years, has been retarded principally by the increase of commerce throughout the world. Similarly, increased activity of trade in any country demands a proportional increase of currency, which will not affect prices.

But the most important limitation to be imposed upon the principle of the interdependence of general prices and the quantity of the circulating medium is this, that it is strictly

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applicable only to that simple state of things in which money only is used for purchasing purposes, and *credit* is unknown. *Ceteris paribus* general prices vary inversely as the amount of money in circulation, but credit is the most important of those other things which must be the same. General prices depend more, in a country like England, on the state of credit than on the quantity of money. 'For credit though it is not a pro-'ductive power is purchasing power; and a person who, having 'credit, avails himself of it in the purchase of goods, creates just 'as much demand for those goods, and tends just as much to raise 'their price, as if he had made an equal amount of purchases 'with ready money.'* This kind of credit which constitutes purchasing power *may*, certainly, be represented by a bill of exchange, which is a form of paper money; as when one dealer pays another by a bill on a third. But it also may, and frequently does, happen that a series of transactions between two merchants, involving the mutual transfer of goods to any conceivable value may require the intervention of money, metallic or paper, only to the trifling extent necessary for the payment of the residual balance of their accounts. We must remember then, that the purchasing power of an individual, (or of a community), consists of the amount of money in his possession, or due to him, *plus* the amount of credit at command: and that it is the portion of this purchasing power which is brought into exercise that affects prices.

Again; as money affects prices in proportion to its actual amount multiplied by the number of times it changes hands, so credit, which in respect of purchasing power is equal to money, produces an effect upon prices proportionate to the number of transactions it effects. Credit transferable is more influential than credit which effects but one purchase. Therefore, the amounts represented being equal, bank-notes influence general prices more powerfully than bills of exchange, and these more than book-credits. The last effect the payment of the balance remaining due between traders after a series of transactions; bills of exchange may effect five, six or more payments before being finally cashed, by the simple process of endorsement; while bank-notes pass freely innumerable times from hand to hand, and may never be ultimately cashed at all.

Starting now from the established principle that, *other things being the same*, the value of any currency of any country, estimated in commodities, varies inversely as its amount, and

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* Mill's *Political Economy* II. 40.

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remembering that credit in its various forms is the most important influence modifying the universal applicability of the principle, we shall proceed to apply it to the three cases before enumerated. We are now leaving out of consideration all forms of paper money except promissory notes, convertible or inconvertible, issued by Government or by Banks. We shall assume, for our present purpose, that the other forms of credit which economize money and affect general prices, remain stationary in amount.

We have already cursorily mentioned the case of a currency composed partly of gold or silver, and partly of convertible notes—as is the case in England. The notes, being immediately convertible on demand, are precisely equivalent in value to the precious metal which they represent. Should the quantity of paper be increased by a fresh issue, without proportional increase of commercial transactions, so that the total amount of currency in circulation exceeds the requirements of the community, the value of the entire currency falls. But the metallic portion of it bears an intrinsic value, almost uniform throughout the commercial world. Though depreciated in its own country it retains its market value abroad. It is exported at a profit, in quantity proportional to the increased amount of paper issued, which takes the place of the metal, and the old state of prices is restored.

It is evident that if the issue of notes be unrestricted this process of substituting paper for metal and sending the latter abroad may be carried to a considerable extent not only without injury to the community or individuals, but with positive benefit to the public as well as to the issuers. But it is also evident that, if no limit is imposed upon the issuers, the temptation to profit by the substitution of this paper for metal may be yielded to to such an extent as to endanger or destroy the convertibility of their notes.* There undoubtedly is a limit of safety in issue. There is, in every country, a certain amount of currency which may consist of paper without danger of its convertibility being tested by presentation at the issuing office for conversion into metal, except in case of unreasoning and

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* The history of the Bank of England affords us an instance of an attempt to over-issue convertible paper defeating its object, and causing heavy loss in place of the profit expected. For many years it over-issued and had to coin from £800,000 to £1,000,000 annually in order to change its notes which, being in excess of the requirements of the commercial world, were being returned upon its hands. For this purpose the Bank was obliged to buy gold at £4 an ounce, and issue it at £3-17-10½—thus losing between 2½ and 3 *per cent* upon the amount coined.

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extraordinary panic—and even this exceptional case may be allowed for, its degree of probability estimated, and the amount of paper currency to be kept permanently afloat proportionably diminished. No doubt this limit is ascertainable by experience, and up to this limit the substitution of paper for metal is an almost unmixed good. The great practical question to be solved in the establishment of a system of paper currency which shall ensure the maximum of advantage with the minimum of risk is—how much paper may safely be issued without reserving gold or silver so as to render its convertibility *absolutely* certain? This is the great question upon which currency authorities are at issue. We shall have to consider it hereafter.

The next case to be considered is that of a mixed currency of metal and inconvertible paper.

So long as the paper issued is convertible there cannot be more than a transient general rise of nominal prices, because there cannot be more than a temporary excess of currency in circulation. When the whole of the metallic currency has been superseded by paper, if a further issue take place it is at once returned upon the issuers, and the total amount of circulating medium is thus kept at its normal level, corresponding to the amount of transactions which it has to effect. But it is quite different with inconvertible paper. Every note issued in excess of the commercial requirements of the country influences prices. The more paper is issued, the greater will be its depreciation and the greater the divergence between paper and metallic prices. The holders of fixed incomes and creditors, public and private, are defrauded in proportion to the extent of depreciation. It is the obvious interest of the issuers, whether a Government or a Bank, to emit paper without limit, and every additional note increases the evil. The metallic part of the currency, has, as compared with commodities, a fixed value, pretty nearly uniform over all parts of the commercial world, because dependent, like the values of other commodities, upon the cost of production. But the other ingredient of the currency, the inconvertible paper, having no appreciable cost of production, varies in its value, (given a fixed number of commercial transactions to be effected), inversely as its quantity. The values of the two constituent parts of the currency being thus dependent upon two totally different conditions, there is obviously, a tendency to divergence, consequent upon the over-issue of inconvertible paper. In the case of a currency constituted as supposed, the duty of the Legislature (if there be one), is to devise means for resisting this tendency. If the circulating

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medium of a country is to be composed partly of metallic and partly of inconvertible paper currency, two things are indispensable. The issue of paper must be limited, so that the whole currency shall not exceed the commercial requirements of the country; and,—which is rather the means of effecting the other than itself a distinct object of attainment—the values of the metal and the paper must be kept in correspondence: paper bearing the denomination of a certain number of pounds, or florins, or dollars, or rupees, must exchange freely anywhere within the limits of the country for an equivalent nominal amount of coins.

The former of these objects is attainable by vesting the power of issuing inconvertible paper which is to be legal tender in a department of Government, or in a commercial body subject to the control and constant supervision of Government. (The country in which, owing to the possible or certain ignorance or dishonesty of Government, this cannot be safely done, should not, under any circumstances, adopt the use of inconvertible paper). The latter can be effected by observing the market price of gold and silver bullion, comparing it with the mint price, of the same, and contracting or expanding accordingly the issue of paper. When the market price of bullion estimated in paper rises above the mint price, the paper is depreciated and its issue must be contracted. If the mint price of gold in paper be £3-17-10½ per ounce Troy, while, if we want to buy gold in the market we have to pay £4 in paper for the same ounce, the paper is depreciated to the extent represented by the divergence of the two prices. The total amount of currency in circulation exceeds the commercial requirements of the community in that proportion. The remedy lies in withdrawing the superfluous paper from circulation until the mint and market prices again coincide.

The same method is obviously applicable to the case where the entire currency of a country consists of inconvertible paper, except, of course, some subsidiary metal. The Government, which is generally in this case the sole issuer could, if it were inclined, maintain its paper on a par with metal by observing the correspondence or divergence, between the nominal value of the former and the market price of bullion used for the arts. But the Governments which issue inconvertible paper rarely trouble themselves with such minutiæ, being generally content with the immediate and obvious profit attendant upon paying their servants and their creditors with paper which costs them nothing, and leave the evils of paper money daily deteriorating in value to be met and remedied or endured by their successors.

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Conditional convertibility is, as regards effect upon prices, the same as inconvertibility. Notes only convertible on the fulfilment of some condition, or at some distant date, would certainly in comparison with notes absolutely convertible, be subject to a discount, as they would be in comparison with metal. The Scotch notes mentioned by Adam Smith, in which an 'optional clause' was inserted, circulated at a discount. So did the old Yorkshire paper, in which convertibility was made dependent upon the holder's producing before the issuer change for a guinea. Notes issued by the North American States, as well during the struggle for independence as before it, were made payable in Government paper, which, again, was not convertible into cash for a certain number of years; and legislation, (as in the case of Pensylvania, in 1722), making penal any difference between such paper and metallic currency, was ineffectual to prevent depreciation, which (in dealings with foreigners at least) extended as far as 30 per cent. As far as regards internal commerce, however, such imperfectly convertible paper might have been maintained by the simple expedient of limiting its amount.

In enumerating the advantages arising from the substitution of paper for the precious metals we included the profit to the country. This may be considered from two points of view, which may sometimes, (as is, or was, intended in our Indian system), coincide. There is first the addition to the wealth of the community generally, by the amount of commodities of necessity, comfort, and luxury purchased by the gold and silver for which paper has become an efficient substitute. There is, secondly, the profit accruing to the issuers themselves, who find their capital increased by the amount of all or nearly all of their paper which is in circulation. It will be sufficient for the present to quote, on this subject, the following passage from a chapter of Mr Ricardo's work on Currency and Banks, from which we have already made an extract.

'In a natural point of view it is of no importance whether 'the issuers of this well-regulated paper money be the Govern-'ment or the Bank: it will, on the whole, be equally productive of 'riches, whether it be issued by one or by the other; but it is 'not so with respect to the interest of individuals. In a country 'where the market rate of interest is 7 per cent, and where the 'State requires for a particular expense £70,000 per annum, it is 'a question of importance to the individuals of that country 'whether they must be taxed to pay this £70,000 per annum, or 'whether they could raise it without taxes. Suppose that a million

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'of money should be required to fit out an expedition. If the 'State issued a million of paper and displaced a million of coin, 'the expedition would be fitted out without any charge to the 'people; but if a Bank issued a million of paper, and lent it to 'Government at 7 per cent, thereby displacing a million of coin, 'the country would be charged with a continual tax of £70,000 'per annum; the people would pay the tax, the Bank would receive, 'and the society, in either case, would be as wealthy as before: 'the expedition would have been really fitted out by the improve- 'ment of our system, by rendering capital of the value of a million 'productive in the form of commodities, instead of letting it 'run on unproductive in the form of coin; but the advantage would 'always be in favor of the issuers of a paper; and as the State 'represents the people, the people would have saved the tax if 'they, and not the Bank, had issued this million.'*

To this subject of profit we shall probably recur.

However, it is scarcely necessary to remark that there are dangers and drawbacks attending the use of a paper currency. Even Adam Smith, fully alive as he is to the advantages of such a circulating medium, as illustrated by his comparison already quoted, is quite sensible to the dangers which attend it. 'The commerce,' he says, 'and industry of a country supported upon 'the Dædalean wings of paper currency, though increased in 'amount, will not be so secure as when resting on the solid 'ground of gold and silver.' Having briefly pointed out the benefits of a paper currency, we now proceed to consider the disadvantages and dangers to which it is liable.

The reserve of precious metals on which a convertible paper currency is based may fall into the hands of an invading enemy who may thus find an immense amount of gold and silver stored up in one place and ready to his hand. It is unnecessary to dwell upon the serious consequences of such a blow as this—a blow which would be severe in proportion to the degree to which the substitution of convertible paper for coin had been carried, and which would therefore fall with greater weight upon England than upon any other European country.

Insolvency of the issuers of convertible paper leads to widespread distress. Confidence in the stability of the issuers is theoretically essential to the voluntary reception of bank-notes: but in country places it might often happen in England, in the

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* *Ricardo's Works by McCulloch, 2nd Edition* pp. 218-9.

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old days of abundance of country-banks, all issuing notes, that a farmer, or labourer would be practically obliged either to take payment in country notes or not at all. Most of those who suffered from the wholesale insolvency of country banks in the commercial crisis of 1792-3, when one hundred of these institutions stopped payment and more than fifty of them perished, knew nothing about 'legal tender' or 'convertibility,' nor had they any misgivings as to the stability of the issuing banks. In 1825 seventy issuing banks were swept away in less than six weeks, inflicting heavy loss upon the holders of their paper. These and similar instances which could easily be given from the commercial history of Great Britain illustrate one serious danger which may attend a mismanaged paper currency. The enormous and uncontrolled multiplication of issuing Banks in the United States, with their frequent insolvencies, affords another fearful example.*

The evils arising from possible insolvency of the issuing parties can, however, be obviated to a greater or less extent by judicious legislation. Banks may be compelled by law to give adequate security for the convertibility of their paper on demand, and frequent periodical publication of the amounts of their issues and of the coin or bullion retained to meet demands. The proportion always to be maintained between these two amounts may also be fixed by law, at a point which multiplied experience may have shown to be sufficiently safe. Such restrictions may be enforced without diminishing the profit to which the issuing body or person is fairly entitled. This is a question of detail. Unskilful, reckless, or dishonest bankers would probably issue as much paper as they could float, in hope of increased profit, and regardless of exposing the community to risk of loss by possible insolvency. But prudent issuers probably would not, if their operations were unrestricted, exceed the amount or proportion of issue which the legislature deemed safe. No injury, therefore, would be inflicted upon them, or upon the community, by the legislative restrictions of which we have spoken: while the interest of the public, (and even their own true interest), imperatively demands such limitations in the case of the former class.

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* The great inconvenience attending the variety of notes, (or 'bills' as they are called in the United States), is another, though a comparatively trifling disadvantage. A purchaser will frequently be detained for some time in a 'store' in New York while the shopkeeper to whom he has tendered a 'bill' in payment, is examining a long list of the safe banks, to ascertain whether the tender should be accepted or rejected.

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Such remedies are readily available in countries like England and the United States, in which systems of issue are already existing, and where, consequently, a more effectual and radical cure for the evil we are considering would interfere materially with private interests and even seriously derange commercial affairs for a time. In England, indeed, where the use and system of paper money, of all kinds, have attained a much higher state of excellence than in any other country, the true remedy for the risk of insolvency of issuers has been almost reached by the much-discussed Bank Charter Act of 1844. In the United States the establishment of a National Bank is occasionally mooted; which, if soundly instituted and judiciously managed in its Issue Department, would be of immense benefit to the internal commerce of the country. But the mismanagement of the old United States Bank, and the association in the minds of the community between it and the wide-spread ruin which its collapse in 1837, (owing to General Jackson's vetoing the Bill for the renewal of its Charter), aggravated and partly occasioned, render the speedy establishment of a similar institution improbable.

There can, we think, be no doubt that the power of issuing paper money, whether convertible or inconvertible, should be entrusted to a single body; and that either an actual department of Government, or one subject to constant supervision and control by the Legislature or the Executive. The issue of inconvertible paper cannot be carried on with advantage or safety in any other way; while convertibility can be absolutely insured in this manner alone. The solvency of the nation will then be pledged for the convertibility of the national paper: and, as far as the particular country is concerned, no higher security is attainable. Where the field is free for the establishment *ab initio* of a paper currency, as it was in this country, no better plan could be adopted, not only for obviating the evil which we are at present specially considering, but also for reducing to a minimum the other inevitable but mitigable disadvantages of a paper medium. In England, in this respect as in so many others, a compromise was adopted, and, under the circumstances, perhaps unavoidably. It was the intention of the original promoters of the present English system of issue to prohibit altogether the emission of bank-notes by any person or Company except the Bank of England. This was not carried out by the Act of 1844. The existing banks of issue were permitted to continue, but provision was made for the withdrawal of their

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notes from circulation, and the substitution of Bank of England paper for them, by special agreement in each case; and it was enacted that no new banks of issue should be instituted. At the same time the chief issuing body—not a department of Government, it is true, but necessarily closely connected with it in other transactions—was placed, in its Issue Department, which was thus entirely separated from the banking business of the Corporation, under stringent limitations, which we shall have to discuss hereafter, and subjected to constant supervision by the public.

Suspension of cash payments is a degree of insolvency, and a contingency to which the use of paper money is liable, that it is a danger and an evil is indubitable. That it is equivalent to 'national bankruptcy,' or that it is even the 'beginning of the end,' or that it is so serious a step as to justify the howl of triumph with which its recent occurrence in the United States was greeted by the *Times*, and more respectable members of the Slavery press in London, cannot be conceded. The suspension of cash payments by the Bank of England in 1797 was no doubt an evil; though, as it appears to us, a necessary evil. But it was a very different thing from national bankruptcy, and its evil consequences might have been mitigated by a clearer comprehension of the whole subject of paper currency and by skilful management founded on such comprehension. In the case of England the suspension was unnecessarily prolonged, and the issue of paper which had ceased to be convertible was, through ignorance, excessive. Both these errors may be avoided by the United States, who have the example of the older country as a warning.

In 1795, in consequence principally of heavy demands upon England for gold, for loans to the Emperor of Germany, and for continental expenditure, the exchanges took a turn unfavorable to England. Constant alarms of invasion added to the drain upon the banks for gold, inspiring small farmers and retail dealers with a desire of converting all their savings into cash and hoarding it. Heavy runs upon the country banks, thus produced, caused the destruction of many of them, and the panic, thereby increased, induced still greater demands for specie on the Bank of England. In March, 1795, the reserve of coin and bullion in the coffers of that Corporation had amounted to £7,940,000. On Saturday, February 25th 1797, the reserve was only £1,272,000: and there was great reason to expect a heavy run on the following Monday. Under these critical

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circumstances the Privy Council determined, in anticipation of parliamentary sanction, to suspend temporarily cash payments at the Bank of England, and the order to that effect was issued on Tuesday the 26th February, 1797.

By this measure the hitherto convertible promissory notes of the Bank of England were rendered inconvertible for an indefinite period and the issue of inconvertible paper without any control was entrusted to the Banks. Evil consequences certainly followed the step, though not immediately nor unavoidably: but there can, we think, be little doubt that the circumstances justified the intervention of Government to save the Bank of England from impending insolvency. The run was not the result of mismanagement, either by over-issue or otherwise. It was the result chiefly of panic fear of invasion. The alternative was a circulating medium composed entirely of the precious metals, attended by not only the ordinary disadvantages but additional ones arising from the scarcity of gold and the importunate demand for it for exportation. While the alarms of which we have spoken prevailed no convertible paper could for a moment remain in circulation, and it was therefore a question of paper temporarily inconvertible or no paper at all.

But the circumstances which appear to have justified the suspension of cash payments in the beginning of 1797 did not sanction the continuance of the restriction after those circumstances had ceased to exist. By this continuance, however, it is to be explained, the country was subjected to the intolerable evil of an uncontrolled issue of inconvertible paper. The fear of the recurrence of alarm and panic has been assigned as the reason for the Government in this respect. A more probable motive was the great convenience attending an unlimited supply of advances which the Bank was able to afford without any drain upon her bullion. The case is an illustration of the principle which should never be lost sight of by those who found or manage a system of paper currency, viz, that no Government can safely be trusted with the power of issuing inconvertible paper without control of law and educated public opinion. The temptation to over-issue, without regard to consequences which are seldom immediate, is too great to be resisted in times of even moderate pressure. Let us briefly trace the progress of over-issue consequent upon the unduly prolonged restriction upon cash payments before we consider over-issue as the great danger attendant on a currency consisting wholly or chiefly of incon-

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vertible paper—a danger so serious as to render such a currency, however theoretically allowable, absolutely inadmissible in any second system.

Confidence in the Bank of England and moderation in the issue of the now inconvertible paper kept the latter up to par for more than three years after the issue of the order in council. The fact that the notes were freely issued and received in all Government monetary transactions produced, of course, a favorable influence on their reception by the public. A resolution to which the principal merchants, bankers and traders of the city came, to the effect that they were willing to accept Bank of England notes as readily as before the suspension, and that they would exert any influence they possessed to induce others to do the same, contributed powerfully to insure their uninterrupted circulation. But it was moderation in their issue which saved them from depreciation below their nominal value. As long as the amount of paper only equalled the amount of gold for which it was substituted, and which was necessary for carrying on the commercial business of the country, five pounds in paper was fully equivalent to five sovereigns. When ignorance and mismanagement pushed the issue beyond this limit, the paper became depreciated in proportion to the excess of its quantity over the commercial requirements of the community.

For example. The harvest of 1800, the fourth year after the suspension of cash payments was deficient. Large quantities of foreign corn were imported which had to be paid for in coin. Had this unavoidable drain taken place under ordinary circumstances when the currency of the country consisted of metal and convertible paper, the total amount of the currency must have been diminished by the whole quantity sent abroad to pay for the imported corn. The remainder would have been the amount available for effecting the objects of a circulating medium within the country. At this amount a well regulated inconvertible paper currency would have been kept, by restricting issue when the export of coin took place; so that the actual amount of currency circulating in the country should correspond exactly with what it would have been if no suspension had taken place. Had the directors of the Bank of England been obliged to pay their notes in gold on demand, they must have restricted their issue—or rather it would have restricted itself, because all the notes which, while remaining in circulation, raised the total amount of the currency above the standard of commercial requirements, would have been returned upon the Bank for

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conversion, and re-issue would have only led to re-return. But freed from the necessity of converting their paper into coin, the directors did not restrict their issues as they should have done. On the contrary, they added to the amount of their paper already in circulation. A depreciation of 8 per cent in comparison with gold was the result: and the amount of discount was the measure of the degree in which the amount of the currency exceeded the level at which it ought to have been maintained.

However, shortly afterwards, the notes partially recovered their value; so that from 1803 to 1808 the discount was only £2-13-3 *per cent.* But in the two following years the issues were enormously increased, although no increase in the business of the country had taken place, to justify and demand an augmentation in the amount of the currency. Between 1802 and 1808, both inclusive, the amount of Bank of England paper in circulation had ranged between the maximum and minimum of 19½ millions sterling and 16½ millions. In 1809, it amounted to £18,927,833: and in the following year to £22,541,523. Nor do these figures express the full extent of the evil. The country banks had increased their issues in a still greater proportion. The discount on bank paper rose from £2-13-2, at which it had been in the beginning of 1809, to £13-9-6 in 1810. The attention of Parliament was directed to the subject. A Committee of the House of Commons was appointed to inquire, and after demonstrating in their Report that over-issue of inconvertible paper was the sole cause of its depreciation in comparison with coin and bullion, recommended that cash payments should be resumed by the Bank of England in two years. But the House of Commons, by a large majority, declined to act upon this recommendation: resolving that Bank of England paper was at that time considered by the public as fully equivalent to coin, although these notes were openly at a discount of more than 10 *per cent.*

The Bank of England, being thus freed from any apprehension of interference by the legislature, continued to issue her paper with all her might. The country banks were no less active. Discounts could be obtained by almost any one, with dangerous facility, and the wildest speculations were hazarded. To this excessive issue of country bank paper the extraordinary rise of rents and prices, which took place before the crash in 1814, is attributable. In the latter part of 1813 circumstances led to a considerable fall in the value of corn, this operated on the country banks through the agriculturalists. Unsound banks

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—a numerous class—fell by their unsoundness. Solvent banks perished by want of confidence and consequent runs, occasioned by the fall of so many of their weaker brethren. In the three years 1814, 1815, 1816, two hundred and forty banks stopped payment, many thousand shareholders and depositors and holders of notes were ruined and wide-spread misery produced. But from this nettle danger was plucked the flower safety. The enormous destruction of paper, consequent upon the fall of so many issuing banks, reduced the amount of the currency to its normal level—the requirements of the commercial transactions of the country. Paper rose again to nearly the value of gold, viz: to 3 *per cent* discount; and the way was prepared for the resumption of cash payments with the least possible derangement of commercial equilibrium, or injury to the private interests of individuals. The Bill for this purpose was carried by the late Sir Robert Peel in 1819, and cash payments were resumed after a suspension of more than thirty years.

We cannot now enter into a discussion of the question whether this measure was injurious or beneficial. It ought to be decisive of the matter that an ill regulated, or an unregulated, paper currency, such as we have described, is a grievous evil; and therefore, whatever puts an end to it must be, *primâ facie*, a benefit to the community: that Parliament had pledged itself to a resumption of cash payments within six months of the termination of the war; so that commercial arrangements were, or might have been, or ought to have been made with reference to the probability of that measure; that the difference of value of paper and gold at the time amounted to only 3, or at the utmost, 5 *per cent.* which measures the total amount of loss to which any one could have been subjected, to be weighed against the advantage of the community in general: and finally, that Sir A. Alison is opposed to the measure; arguing from a universal rise of prices as a token of prosperity; and abundance of 'money'—whether inconvertible paper or anything else—as a sure indication of national wealth; while Mr McCulloch and Mr Mill are on the other side.

We have thus seen that England, whose system of paper currency is undoubtedly the best in the world, affords us, though temporarily, an instructive example of the consequences of over-issue, which is one of the greatest dangers to which such a currency is liable. This was a case of convertible paper made temporarily inconvertible, on apparently sufficiently emergent grounds, and after an unduly prolonged period of suspension restored to its

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normal convertibility. But other European countries afford us instances of unlimited issue of inconvertible paper, and consequent enormous exaggeration of nominal prices. From these we may learn, if we need the lesson, that an unlimited issue of inconvertible paper is an intolerable evil; that no executive can be trusted with the control of the issue of such a circulating medium; and that the dependence of general prices upon the amount of the currency, *ceteris paribus*, is so direct and evident that we have at once a clue to the proper management of an issue of inconvertible paper, if circumstances should at any time render its adoption expedient.

The resumption of cash payments, however, unaccompanied, as it inexplicably was, by any attempt to control the issue of paper by any one who thought it worth his while to become a banker, did not obviate over-issue. In 1823, a rise in the price of corn, which had been low in the three preceding years, owing to abundant harvests, combined with other causes, induced an epidemic of speculation. The country banks hastened to supply the consequent demand for money by enlarging their issues of paper. Over-trading and over-issue re-act upon each other. It is obvious that Banks cannot issue their paper at will, after such a fashion as Dean Swift's servant adopted when he 'passed' a light guinea by slipping it in among some coppers paid to a 'pikeman. There must be a demand for accommodation—for the discounting of bills—before a bank can issue its paper. There will generally be an excessive demand for accommodation, owing to inordinate speculation or other causes, before a bank can begin to over-issue. But when the process has actually begun, the eagerness of a bank to force its paper into circulation re-acts upon the demand for accommodation. Facility of obtaining the latter increases the desire for it in those who were already speculating, and incites to speculation those who would not under other circumstances have thought of it. Thus an epidemic of speculation created a demand for money at the time of which we write, a demand which the banks, in their morbid eagerness to force their paper into circulation met more than half way; and their eagerness to supply the demand increased its violence. The process went on, till, according to a probable estimate, the amount of country paper in circulation in 1825 was half as much again as it had been in 1823, the natural result followed. The currency became redundant, and foreign exchanges declined. When the demand for gold upon the Bank of England—the great reservoir of accommodation for the country banks—became serious, she became more chary of her assistance to the latter. A panic of suspicion

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ensued. Runs set in with violence unprecedented even in the panic of 1792-3. In less than six weeks seventy banks had disappeared. The amount of paper rendered worthless by their fall was so great that the Bank of England found it necessary to issue between eight and ten millions sterling to supply the vacuum in the currency. It must be remembered that this sum does not represent the amount of over-issue, which must be measured approximately by the rate of exchange; but it enables us to form an idea of the enormous magnitude of the evil to which over-issue led. The greater portion of those eight millions, as well as of the excess of the total currency over the requirements of the country was lost by members of the community. This aroused the country to a sense of the danger to which its ill-regulated, or unregulated system of paper currency made it continually liable. Steps were taken to obviate this danger, which, though not perfect, tended somewhat to improve the system. The Act of 1708, which, in order to prevent the formation of joint-stock banks, limited the number of partners in a banking concern to six, was repealed. At the same time one pound notes were prohibited, and since 1829 have ceased to circulate in England.

When we consider that the two great objects to be attained were the prevention of over-issue of paper and its consequent depreciation by excess, and, secondly, security against the issue of any bank-notes by parties of doubtful solvency, we see at once how inefficient were the remedies applied by the legislature. One pound notes were certainly the form in which the paper of the small local banks chiefly circulated. Their suppression, therefore, not only restricted circulation but also in some measure protected from the disastrous consequences of bank failures the classes, such as laborers and small farmers, amongst whom one pound notes most freely passed, and who would suffer most by the insolvency of the issuers. So far the results of the measure were beneficial, but the panic of 1792-3, when no note for less than five pounds was in circulation showed the futility of the suppression of one pound notes as a preventive of panic or over-issue.

Again; the experience of our own day shows abundantly how utterly unfounded was the idea on which the legislature acted, in removing the restrictions upon the institution of joint-stock banks, namely, that these are more secure than private banking houses. Recent terrible examples have proved that less skill, prudence, caution, and fewer safe-guards against embezzlement and fraud are to be found in the management of joint-stock banks than are usually to be found in the conduct of private concerns. We

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shall consider hereafter, when we come to discuss Sir R. Peel's Bank Charter Act of 1844, what are the true and only means of securing the two main objects stated above, and shall see how far they have been attained by means of that measure, and whether any compensating disadvantages have resulted from its enactment.

It remains for us to illustrate the evil effects of over-issue of inconvertible paper, by one or two historical examples. 'In Russia,' (we quote from a note of Mr. McCulloch's in his edition of the *Wealth of Nations*), 'forty millions of paper roubles, or assignats 'were issued in 1769, by the Government Bank established in the 'preceding year. There were some regulations with respect to the 'conversion of these assignats into *copper*: but Mr. Storch has 'shown that these were altogether illusory, and that, practically, 'the assignats were inconvertible. They were however made legal 'tender at the same rate as *silver* roubles: while in order to insure 'their circulation, it was ordered that a certain proportion of taxes 'due by each individual should be paid in them. In consequence 'of these regulations the assignats really formed a species of in-'convertible paper money; and as their supply had not been ori-'ginally excessive, and no further additions were made to it for 'about *eighteen* years, they continued, during the whole of that 'period, to circulate at about the same value as silver. In 1787, 'however, a fresh emission of sixty millions of additional assignats 'took place, which immediately depressed their value about eight 'per cent under silver. And owing to successive emissions, the 'mass of assignats in circulation in 1811 was increased to the 'enormous sum of 577 millions; when they fell to a discount of '400 per cent, as compared with silver! Since 1815 the mass of 'assignats has been much diminished and their value has uniform-'ly increased with every diminution of their quantity.* Can any 'more conclusive proof be required, to show that the value of such 'paper currency as legal tender is always proportioned—other 'things being the same—to the quantity in circulation?'

France affords a still more striking illustration of the effects of over-issue of inconvertible paper. In John Law's time that country had a lesson on this subject, when wide-spread ruin resulted from panic and over-issue combined. There is good reason to believe that the great speculator himself knew the danger of the course which the Regent was pursuing, and would have stopped the out-gushing flood of paper if he had been able.

* A large issue of these notes has been made very recently.

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But the apparent ease with which 'money' to any amount could be manufactured was too dazzling a temptation for the Regent, as it has often proved since for wiser men than he. But the Revolutionary Government, in 1791 and the following years, far surpassed their predecessor, the Regent, in the superabundance of their issues, and in the example of depreciation thereby afforded.

Even in 1791 the French assignats had fallen to one third of their nominal value. In September 1792, 2700 millions francs, (more than £130,000,000) had been already issued during three years of peace. Of this only 15 million francs remained in the national Treasury, and the convention ordered a fresh issue. No attention was paid to the rate of discount to which the assignats had fallen, so far as to restrict their issue; but an attempt was made, futile of course, to check the rise of nominal prices which proceeded *pari passu* with the increase of paper in circulation: and in 1793 it was proposed to fix a *maximum* price on all articles of sale.

In spite, however, of this proof of their consciousness of the extent to which depreciation had gone, the convention, on the 7th May 1793, ordered a new issue of assignats to the nominal value of 1200 millions of francs, (£48,000,000). This issue was in addition to 3100 millions (£124,000,000) already in circulation. In the same year, on the proclamation of war, 1000 millions more were struck off, and the total ultimately reached an amount equivalent to £350,000,000, nominally secured on the national domains—the confiscated lands of the aristocracy and the Church. They sank to one-tenth, and soon (in 1795) to one-twentieth of their nominal value. Pichegru, who commanded the Army of the North in that year, drew a nominal pay of 4000f. a month, which he found to be practically equivalent to 200f. The convention took strenuous measures to 'put down' depreciation, decreeing six years imprisonment in irons to any one refusing to receive the assignats at par. They then fell to *one-hundredth* of their nominal value, and soon after to *one-twohundred and fiftieth*. Twenty years in irons were decreed to creditors refusing payment of their debts in depreciated assignats, and debtors were not slow to avail themselves of such facilities for clearing off their liabilities. On May 16th, 1794, 8,778 millions of francs had been issued, (equivalent to £351,150,000), of which there remained in circulation more than 5000 millions—a sum more than equal to three times the combined circulations of England and France, after the currency of the latter had been restored to a healthy condition. But in the beginning of 1796,

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the amount in circulation reached £2,000,000,000; and the depreciation was so great that one gold louis sold for 28,000 francs, and a dinner for five or six persons cost 60,000 francs in assignats!

It remains to mention one more disadvantage of paper currency as compared with metallic. The risk of loss by spurious imitations is somewhat greater. The 'ring,' (at least of most European gold and silver coins, which contain an alloy of copper), the weight, the appearance, and the degree of hardness of coins afford a ready test of genuineness, available to the educated and uneducated alike, and, though not infallible, is found to be generally sufficient for practical purposes. With bank-notes the case is different. In Europe, in spite of multiplied and most ingenious precautions against forgery, spurious notes are continually manufactured with such skill as to be undistinguishable from genuine paper by any but those acquainted with the private marks known only to the issuers. The disadvantage of this is obvious: but as skill in counterfeiting coin has, perhaps, advanced to nearly as perfect a state as that of forging bank-notes, the inferiority of paper to coin with reference to injury from spurious imitation, does not rest merely upon the greater liability of the former to be imitated by successful fraud. The amount of loss to the unwary recipient of a forged note may be very much greater than that of the man who unwittingly accepts a bad sovereign. In England a man can only lose a pound at a time through the latter misfortune, while by a forged bank-note he must lose *five*; and the chances against the 'passing' of five spurious sovereigns to one person are very much more than five times those against passing a five-pound note. The most valuable current coin is the American double-eagle, worth about £4; but a bank-note may be worth thousands.

Again; a false coin must contain a considerable amount of the precious material of the true coin which it personates; while the material of a forged note is comparatively valueless. After a certain number of spurious sovereigns have been successfully uttered—sufficient to replace the cost of presses or other machinery for their manufacture,—each additional coin gives as profit only the difference between its intrinsic value and that of the genuine coin for which it passes—say, 25 *per cent.* 'But a forged five-pound note, under similar circumstances, pays nearly *cent. per cent.*' The premium upon production therefore in the one case is much greater than in the other; the loss to the person defrauded being equal; while the legal penalty is not greater. Multiply this loss by the possible amount of the bank-note—the

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value of the highest coin being fixed—and the disadvantage under which the paper labors becomes very striking.

This disadvantage, we remark, is to be set against the advantage of greater portability which paper possesses over metal. The larger the figure of the note, the greater is its superior portability over the metallic equivalent, but also the greater the risk arising from its use and the consequent disadvantage.

We hope in a future paper to consider the principles on which a well ordered paper currency should be managed—illustrating them from the example of the Bank of England—and to point out the application of these principles to the peculiar circumstances of India.

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ART. II.—1. *Journal of the Asiatic Society of Bengal.*

2. *Proceedings of the Royal Geographical Society of London.*

3. *Description of China, Chinese Tartary &c. &c. translated from the French of* P. DU HALDE, printed by T. Gardner. Bartholomew Close, London: A.D. 1738.

4 *Results of a Scientific Mission to India and High Asia. By Herman, Adolphe and Robert De Schlagintweit. Vol.* 1, LEIPZIG: F. A. Brockhaus. London: Trübner & Co. 1861.

5. *A Series of Papers on Mountain & other local attraction in India and its effect on the calculations of the Great Trigonometrical Survey.* By JOHN H. PRATT M. A. Extracted from the Transactions of the Royal Society for 1854, 1855, 1858 & 1861. Calcutta: 1862.

6. *Asie Centrale—Recherches sur les Chaines de Montagnes, et la climatologie comparée.* Par A DE HUMBOLDT. Paris: Gide, Lebaire Editeur, 1843.

IN former numbers of this Periodical* we have given accounts of the Great Trigonometrical Survey of India, and traced its operations continuously from its commencement in 1800 by Captain Lambton—the Father of Indian Geodesy—to the year 1850, when the Blue Book, containing Colonel Waugh's able analysis of the proceedings of the Survey was published. We entered at length on the long contested question of the relative value of Astronomical Observations in comparison with Trigonometrical, for the basis of an operation of such magnitude as the Topographical delineation of the British Indian Empire. We would, however, again return to this subject, to shew that the

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* No. VII. Sept. 1845. Art. 3. and No. XXXII. Dec. 1851. Art. 8.

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arguments in favor of Trigonometrical operations are almost as valid in the present advanced stage of Astronomy, as they were of old in the infancy of the Trigonometrical Survey of this country.

There is much that is very tempting and charming in Astronomical observations. They give absolute values of the two important elements Latitude and Longitude, of the place at which they are taken, and it would seem at first sight to be far preferable to employ them to determine the positions which are to become the origins and termini of future Surveys, than to undertake the very tedious and laborious process of connecting these points by Triangulation. They have often an appearance of very great accuracy; numerous repetitions give results which for the most part coincide very closely, and consequently have very small Mathematical 'probable errors'. Under such circumstances, none but a hardened unbeliever would venture to suggest the possibility of the existence of a large actual error, due to some mysterious and unknown cause, which is beyond the ken of the Astronomer, and not subject to his control.

Most persons are agreed that very accurate and satisfactory determinations of latitude may be obtained with ordinary means. In our last notice of the Trigonometrical Survey, we expressed an opinion, which we are now anxious to qualify, that thirty or forty observations with a good sextant ought to determine the latitude certainly within 200 feet of the truth. Granting that the results would be within 200 feet of the value given by the most refined measurements, with the most powerful instruments, they may still be some way off from the truth, for there is a source of error which affects all such observations alike, independently of the instrument by which they may be taken; it ever exists to a greater or less extent, and cannot be eradicated, or even measured with absolute certainty. We mean the tendency of the plumb line to deviate from its normal direction, in consequence of local irregularities in the Earth's crust. The plummet is attracted by mountains, and repelled by oceans, the former by the excess of matter which they bring to bear on it, the latter by the deficiency which results when water takes the place of land. Even on level plains remote from hills and seas, deflection exists when the rocks and strata below are of unequal densities, on opposite sides of the plummet.

In the memorable experiment which was made at the mountain of Schiehallien, in Perthshire, for the purpose of measuring the amount of its attraction on the plumb line, the meridional distance of two stations on opposite sides of the mountain was

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found to be 4364·4 feet, or 42″·9, as computed by a process of triangulation, while by Astronomical observations it was apparently 54″·6 or 5554·7 feet. The difference, amounting to more than one-fourth of the entire distance, is wholly attributable to the Astronomical observations, the plumb line at the station on the south of the hill being attracted northwards, while at the opposite station it was attracted southwards, thus causing the Astronomical arc to be larger than the Terrestrial by the sum of the deflections. Half this quantity is the mean effect of the mountain in disturbing the plumb line at either station, but whether the attraction is greater at one than the other, and by what amount, are questions which are undeterminable with absolute accuracy, and probably will ever remain to baffle and perplex the Geodesist.

A contour survey can give the magnitude of the superficial irregularities, and assign their relative excess or defect in the neighbourhood of each plumb line, but it is also necessary, for a complete solution of the amount of attraction, to know the density, not only of the superficial masses, but also of the subjacent strata, to a depth far beyond the reach of the Geologist.

Thus even the determination of latitude is not so easy a problem as appears at first sight;—Archdeacon Pratt tells us in his able investigations of the effects of attraction on the operations of the Trigonometrical Survey, that the whole of India may be as much as half a mile north of the position assigned it on the maps of the Survey. At Kalianpùr the origin of latitudes, where it was necessary to make Astronomical observations, and refer the operations to the faithless zero of an erratic plumb line, the Archdeacon has shown that the probable error caused by the Himalayas is one fourth of a mile, and by the Ocean about one sixth, which may be increased by variations of density in the strata below. He demonstrates that it affects all the triangulation and the maps in an equal degree, and consequently the whole of the relative distances are correct, which would be very far from being the case if they had been based on Astronomical observations instead of Trigonometrical.

If we now turn to the subject of longitudes, we find a far wider margin allowed for possible inaccuracies. But even here the difficulties of the operations are in general greatly underrated. There is scarcely a Ship-Captain but believes that with a few sextant observations of lunar distances he can find his longitude whenever he pleases within five miles, and is inclined to ascribe to his lunar observations the successful guiding of his ship to

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port, which is due in far greater measure to his older allies, the lead and look-out. Like the man who maintained that nothing was easier than to predict eclipses, for one had but to take them out of the almanac, he will say 'what is the difficulty? one has but 'to compare his lunar observations, after they have undergone 'certain well known corrections, with the data which are given 'ready to hand in the Nautical Almanac, to obtain the requisite 'longitude'. Granting that the observations are perfectly accurate, which is highly improbable, the errors of the Almanac have still to be taken into consideration, and that *they* are not small, may be more clearly understood from the following example of their practical operation, than from any further explanation.

The longitudes observed at Lake Memphramagog in 1845 by the Royal Engineers sent out to determine the boundary between the United States of America, and British Canada were as follows, in terms of the data given in the Nautical Almanac for that year.

August	14th	4 H.	48 M.	26·86
,,	15th	4 ,,	48 ,,	38·07
,,	16th	4 ,,	48 ,,	24·58
,,	17th	4 ,,	48 ,,	26·97
,,	20th	4 ,,	48 ,,	7·53
Mean		4.	48.	24·80

After correction for the presumed errors of Nautical Almanac as determined by observations at Greenwich, taken on the dates in question, these values become.

August	14th	4 H.	48 M.	38·17
,,	15th	,,	,,	53·07
,,	16th	,,	,,	35·86
,,	17th	,,	,,	48·25
,,	20th	,,	,,	23·51
Mean		4	48	39·77

Showing a difference of 15 seconds in time which is nearly equivalent to 4 miles, on the parallel of Madras, and arises from causes entirely beyond the control of the observer.

There is even said to be a doubt of 1″ in the difference of longitude between the splendid and long established Observatories of Paris and Greenwich, for the re-determination of which special Trigonometrical operations are now on foot.

'There is nothing new under the sun'. More than a century and half ago, a f[illegible] Jesuits who had settled in China with

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the laudable object of converting the inhabitants of that vast empire to Christianity, managed to impress the Emperor Kanghi, with the accuracy and advantages of the European methods of mapping, and were consequently engaged by him to construct maps of all the provinces of his empire. Animated by the hopes of securing the protection of the Emperor, 'which was necessary to favor the progress of Christianity,' the Jesuit fathers set to work most rigorously and conscientiously, adopting, after due consideration, the method of triangles in preference to any other.

Our readers will not require us to apologize for placing before them the following brief description of this grand undertaking, which Père Regis, writing in the commencement of the 18th century, rightly called 'the greatest geographical work that ever was performed according to the rules of art'.

Our extracts are taken from the account sent by the Father to France in the name of the Missionaries who were associated with him, as given in the preface to Père Du Halde's work on China, in the English translation which is quoted at the head of this article.

'I can assure you', says he, 'that we have omitted nothing re-
'quisite for rendering our work perfect. We have ourselves
'visited all the places, even those of least consideration, through-
'out the Provinces; examined the maps and histories of each
'city preserved in their tribunals; made enquiries of the Man-
'darins and their Officers, as well as the principal inhabitants,
'whose territories we passed through; in short, by measuring as
'we advanced, we still had measures ready to serve the Trian-
'gles, formed by such points as were to be fixed.

'For after mature deliberation we thought it best to use the
'method of triangles, all others appearing to us not only too
'tedious, considering the vast extent of the countries, of which
'the Emperor wanted the map, but scarcely practicable on ac-
'count of the towns being so near one another, since it is certain
'that the least error, occasioned by the pendulum going wrong,
'or the immersion of one of Jupiter's Satellites not being ac-
'curately observed, would cause a considerable error in the lon-
'gitude: for instance, the mistake of a minute in time would
'produce an error of 15 minutes in longitude, which are equi-
'valent to four or five leagues according to the difference of the
'parallels: so that it might happen, that according to the ob-
'servation, two towns would be made contiguous, at the same
'time that there would be really some distance, though not much,
'between them.

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'This inconvenience is not to be feared in the method of 'triangles: for how is it possible to err four leagues in the 'distance between two places no farther asunder, when by a 'measure that always follows us, and semi-circles accurately 'divided, we fix divers points between the two terms, which 'joined together make as it were a chain of triangles? On the 'other hand, nothing is so difficult as to avoid a small error in 'time; the best pendulums are put out of order by travelling, 'and to prevent erring, even in a single minute, the observations 'must be repeated several days; a task which would be extreme-'ly fatiguing.

'The observations of the Satellites require not only more 'time and accuracy, but also Telescopes of the same size, and, 'if I may so speak, the same eyes in the observer, and his corres-'pondent; for, if the one sees them ever so little sooner than the 'other some error will inevitably happen, which must not be 'suffered in determining small distances. And if observations 'of a Satellite, made in the same place, by the same person, 'differ so in time as to cause a small variation in the longitudes, 'and oblige us to take a middle difference among them (supposing 'the difference to become insensible by the greatness of the dis-'tance) the results will be still more uncertain when there are 'several observers, who have neither the same instruments nor 'address; so that the difference arising between the observations, 'renders the position of places lying near one another doubtful, 'nor can it be fixed but by the rules of Geometry, which shews 'the necessity of having recourse to the method of triangles 'at last.

'This method when continued without interruption, has one 'farther advantage, as it gives not only the longitude, but 'also the latitude of the towns to be inserted; which being 'afterwards examined by the Meridian altitudes of the sun or 'Polar stars, serves to correct the preceding operations. This 'course we took as often as we were able, and commonly found 'no sensible difference between the observation of the latitude, 'and the determination by triangles. If sometimes we dis-'covered variations, we did not think ourselves thereby obliged 'to lay aside this method, since we find as many in the observa-'tions of the Polar altitudes, made by the best Astronomer in 'the same place. Although the theory, whereon such observa-'tions are grounded, is certain, nevertheless the practice depends 'on so many little circumstances, which must all be attended 'to in order to obtain perfect accuracy, that the operations cannot

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'be always exact, but must vary something more or less. How-
'ever, these little defects always appear, and may be often cor-
'rected in large works, by connecting the points fixed by Trigo-
'nometry with those whose position is under examination.

'Another method which we judged ought to be employed for
'great precision was to return to the same point, already deter-
'mined, by different ways, from a considerable distance, working
'according to rules. For if by the last essay you find the same
'situation, the exactness of the preceding operations will be
'proved in some measure to a demonstration. When in measur-
'ing we could not return to the same point, our method was, as
'we passed near the great towns already marked down, or other
'fit places, to look out for the remarkable towns or mountains
'that commanded them; and from time to time we measured to
'see if the distance, resulting from the operations (when correct-
'ed) agreed with the actual measures.

'All these precautions and many more, too tedious to enumerate,
'appeared to us necessary when executing a work in a manner
'worthy the trust reposed in us by a wise Prince, who judged it
'of the greatest importance to his state. Moreover, the hopes of
'meriting his protection, which was necessary to favor the pro-
'gress of Christianity in his empire, supported us amidst those
'dangers and crosses that are unavoidable by those who have to
'do with such a variety of tempers, and are engaged in so labo-
'rious an undertaking: nay, we were willing for our own satis-
'faction, to have repaired again both to the Eastern and Western
'Frontiers, as well as to some places within the kingdom, situated
'at convenient distances, there to examine the longitudes by re-
'peated observations of eclipses; but as the work was finished,
'and the Emperor appeared satisfied with it, we did not think it
'proper to engage him in a new, and not altogether necessary
'affair. We therefore contented ourselves with observations of
'the moon and satellites of Jupiter made before our time in several
'cities by members of our society, though we rejected a few because
'they did not agree with our measures on account of some small
'error as to time in the observation, which but too often happens
'to the most experienced. Not but that we ourselves observed
'some eclipses of the moon, and found no other difference in our
'observations than is usual in such cases; where we had any
'doubt we chose the mean difference.

'Thus having first made use of the method of triangles for
'determining the distances between the several cities, and after-
'wards compared it with that of eclipses observed in places,

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'remote from Pekin, we flatter ourselves that we have fol-'lowed the surest course; and even the only one practicable in 'prosecuting the greatest Geographical work that ever was per-'formed according to the rules of art.'

The Surveys of the Fathers extended from the Eastern frontier of the Chinese Empire as far west as the meridian of Pegu, embracing the Provinces of Yunnan, Szuchuan, and the rest of China proper, and the portion of Eastern Tartary lying between the Chinese frontier and the Saghalian Ula or River Amoor. A map of Korea was met with in the palace of the king of that country, which on examination was found to be so accurate that it was incorporated by the Fathers into their own survey without revision,—a singular circumstance, suggestive of a higher civilization in Korea than at Pekin, for we are led to believe that it was the want of a map of the country around Pekin which prompted the Jesuits to construct one in order to excite the interest of the Emperor, and obtain his favor and support by inducing him to employ them in making a survey of the whole of his dominions. It is to these operations, executed nearly a century and a half ago, that we owe our present admirable maps of China, which are a source of surprise to all who are ignorant of their origin, and only know how jealously Europeans have been excluded from the interior of the Empire. There, or at least in China proper, there is no *terra incognita* to reward future explorers. The recent enterprising expedition of Colonel Sarel and Captain Blakiston up the River Yang-tse-Kiang, which has afforded so much 'valuable information on numerous subjects, has not, we believe, made any additions to our knowledge of Chinese geography; the noble river up which they ascended, and the chief cities and towns on its banks, being mapped out in their chart pretty much as it was mapped by the Jesuits 150 years ago. We trust that at no very distant date the officers of the Trigonometrical Survey of India will be able to connect their triangles with those of the Jesuit Fathers.

When we last reviewed the operations of the Survey, we stated that on the completion of the great meridional series of triangles which extends from Cape Comorin to the Dehra Dhoon, and is now well known in the scientific world as the Great Arc of India, being the longest and probably the most accurate of the several arcs which have been measured in various parts of the world to determine the figure of the earth, the Survey establishments were deputed to execute series of triangles on successive meridians eastwards from the great Arc, at distances of about one degree

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apart, as far as the meridian of Calcutta. These triangulations emanate from a longitudinal* series which had been carried eastwards from the Seronj base line in Central India to Calcutta, in the years 1826—32, before Colonel Everest revised and extended the great Arc. This series was executed with rapidity through a wild and difficult tract of country, at an insignificant cost, barely one fourth the ordinary expense of such operations. Unfortunately the only instruments then available were of a secondary order, the system of operations was deficient in rigor and accuracy, and very inferior to what was subsequently introduced by Colonel Everest, which is much to be regretted, because all the meridional series between the great Arc and Calcutta are necessarily based on it, and their final values cannot be determined until the Calcutta longitudinal series has been revised. The late Hon'ble Court of Directors authorized the revision to be undertaken as soon as the triangulation had been well advanced over the rest of India.

The last of the meridional series between Calcutta and the great Arc, to the north of the longitudinal series, was completed in 1852; and now the greater portion of the Trigonometrical operations to the west of the great Arc, the axis of Indian Geography, are finished. A western longitudinal series extends from Seronj to Karachi in continuation of the Calcutta longitudinal arc; a north west Himalayan series from Dehra Dhoon to Attok; and the Indus series from Attok to Karachi, following the course of the frontier of our Indian empire towards Persia and Affghanistan. These, with the great Arc, form a vast quadrilateral figure at whose four corners base lines have been measured with the set of compensating bars and microscopes which was constructed on the model of the apparatus invented by Colonel Colby for the measurement of the base lines of the Ordnance Survey of Great Britain, and brought out from England by Colonel Everest in 1830.

The bases at Dehra Dhoon and Seronj were measured by Colonel Everest in the course of the great Arc; those at Attok and Karachi in the seasons 1853-54 and 54-55 by Colonel Waugh.

The western longitudinal series was commenced at the close of 1848 by Captain Renny Tailyour B.E., assisted by Captain Strange of the Madras Cavalry. After having successfully started the work, Captain Tailyour returned to his duties at the head quarters of the Surveyor General, leaving Captain Strange to go

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* So called because it is carried in an east and west direction, and measures the distance between successive meridians of longitude.

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on with the triangulation. Great difficulties were met with in the course of these operations; first, the Arabulli range, formidable for its ruggedness rather than its height, had to be crossed, and afterwards the extensive salt desert which intervenes between those mountains and the Indus, and forms the northern flank of the Runn of Cutch.

Captain Strange describes the Arabulli mountains as 'an extensive tract, having a general north and south direction composed of ridges and peaks which though attaining no elevation greater perhaps than 5,500 feet above the sea, yet exhibit in the details that compose them all the boldest features of the most stupendous mountain scenery. The traveller at the end of his day's journey attains perhaps an elevation but little greater than that from whence he departed; but he has in its course more than once ascended with great labor high acclivities only to plunge again and again through dense forests and across rugged beds of mountain torrents into precipitous valleys of equal depth. In many parts of this very peculiar tract where but slight communication and no traffic exists, it may be said that there are no roads whatever. Nothing meets the eye but vast blocks of granite towering aloft, and jungles almost impenetrable obstruct every step. The habitations of men are seldom met with, and man himself as here found roams a lawless savage.

'In addition to the physical difficulties presented by the Arabulli mountains, the impediments were enhanced by the unwillingness of the inhabitants to render assistance. Great interruptions would have been experienced from this cause but for the services of a native officer of the Meywar Bheel Corps, Subadar Chutter Tewaree, who was obligingly deputed by his commanding officer Captain Brooke to accompany Captain Strange. Having been long and extensively employed in recruiting from the Bheel population, and in promoting order and civilization among them, he had been recognized as a benefactor to whom they readily on all occasions accorded obedience. His influence was extraordinary, and a word from him always sufficed to collect strong gangs of carriers, when no persuasion from any one else was listened to.'

The tract crossed by the triangulation between the Arabulli mountains and the Indus comprises three distinct kinds of ground:—

First, a succession of gentle sandy undulations dotted with thick stunted jungle, appertaining chiefly to the Jodhpore and

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Palampur states;—thinly populated and but little cultivated, with a scanty supply of water, which is only to be found in wells of great depth, and is usually brackish, this is altogether a miserable country, and is described by Capt. Strange as 'interesting only from its physical deficiencies.'

Next comes the Desert, commonly known among the natives as the Thur; it is throughout composed of sand hills whose general form is long straight ridges, which seldom unite but stand at close and regular intervals parallel to each other; like the ripple on the sea shore. Some of them are perhaps a mile long and vary from 50 to 300 feet in height, their sides being deeply channelled by rain and their general appearance from a distance differing little from that of ordinary low hills. There is more jungle than might be expected, but it is low and almost leafless. The whole desert in the cold season is clothed with grass, and is then much resorted to for pasturage by herdsmen. The population is scanty, the villages small and far apart, consisting merely of a few conical huts, scarcely a man's height, which are rudely constructed of twigs and grass.

Where the desert ends, the plains of Sind begin, and the transition is surprisingly sudden. In a space of one hundred yards, the traveller leaves sands and dunes, and the stunted vegetation of the desert, and enters a perfectly flat country with a firm, black loamy soil, Inhabitants, customs, language, and vegetation are exchanged with the same strange, startling abruptness. The soil is hard and grassless. Jungle is plentiful and thick, the country populous and well cultivated, and intersected in every direction by irrigation canals. Such a country is, however, very much more difficult for Trigonometrical operations than the preceding inhospitable tracts of sand hills and undulations. In them the chief difficulty was to provide food and water for the officers and men employed. But depots for grain and other supplies were established at various places, and replenished periodically from Deesa and Hydrabad; and the water of the desert, though brackish and most unpleasant, was drinkable without any deleterious effects. The sand hills afforded excellent stations for the Trigonometrical operations, being just sufficiently high to overtop the lower murky strata of the atmosphere, and not too high to make their ascent a matter of difficulty. They only needed the construction of a small pillar and platform of masonry to mark the site of the station. Scarcely a single ray had to be cleared to open the view between the Stations at its extremities. And thus the operations proceeded without check or hindrance, and with greater

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rapidity than had ever previously been attained in any part of the Trigonometrical Survey.

But when the convenient sand hills were passed, and the plains of Sind were reached, it became necessary to construct towers for stations of observation. Most of our readers are probably aware that the limited distance at which ordinary objects are visible on a plain is due to the curvature of the earth. If we walk over a perfectly level plain away from an object twenty four feet high, we find that at the distance of six miles, only as much of it will be visible as equals the height of the observer's eye above the ground. The height which it is necessary to give a tower, to overtop the earth's curvature for any given distance, is determined by the well known rule, that it must equal, in feet, two thirds of the square of the distance, in miles. The towers of the Trigonometrical Survey are usually made from 24 to 30 feet in height; thus each has a command of about six miles, and they are consequently mutually visible at double that distance, when there is nothing but the curvature to be surmounted. Other obstacles must be removed, or overtopped by increasing the height of the towers.

These structures consist of a central pillar of brick and mortar tapering upwards to a diameter of three to four feet at top, on which the Theodolite employed for the principal triangulation is rested. A mass of masonry of unburnt bricks cemented with clay is erected, so as to afford a platform of about twelve by sixteen feet on a level with the top of the pillar, to give room for the Observatory tent, and the heliotropers who are required to flash to and arouse the signallers at the adjacent stations. The summit is reached by a substantial flight of steps. The central pillar is separated from the surrounding platform by an annulus, in order that the instrument may be unaffected by the movements of the observer and his attendants. The pillar is perforated vertically to allow a plummet suspended from its summit to be adjusted over the markstone, which is fixed in its base at the ground level, lest the tower should become accidentally deflected.

These structures cost on an average only Rs. 250 each, or 10 Rupees for every foot in height, but the time occupied in the selection of suitable sites, and afterwards in the erection of the towers, and in carefully clearing the rays between them of all obstacles, causes much delay, and greatly impedes the operations. Progress is further retarded by the bad signals which are presented on all sides to the observer; being so close to the ground

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their rays are most irregularly refracted in all directions, lateral as well as vertical, during their passage through the thick dust and vapours in the lower strata of the atmosphere. Under such circumstances the measurement of the angles proceeds very slowly, and numerous repetitions are entailed. Captain Strange, whose progress over the Arabulli mountains and across the desert had been a series of successes, encountered his first check on the plains of Sind, being delayed at one station no less than twenty-five days, in taking a set of observations similar to what had rarely occupied him as many hours on the sand hills of the desert.

West of the Indus, the triangulation again reached a hilly tract of country, and then advanced with rapidity to Karachi, where, in the month of April 1853, it was brought to a termination on Colonel Waugh's base line. The field operations thus occupied five seasons in all; they comprise 173 principal triangles arranged in quadrilateral or polygonal figures in order that each link of the chain of triangles may be self-verificatory. The average triangular error was $0''{\cdot}79$ or about eight-tenths of a second. Numerous secondary triangles were measured, and the positions of all the principal places in the vicinity of the operations were fixed.

The extent of the measured arc of longitude is $10^\circ 37'$, equivalent to 668 miles in length, and the area covered by the principal and the secondary triangles is 20,323 square miles, the average cost per square mile being Rs. 6-13. The operations involved 117 principal stations, of which only twenty-two were towers, or the expense of the operations, and the time they would have occupied, must necessarily have been considerably greater.

At Kurachi, Lieut. Tennant took a series of observations for latitude with one of the large Astronomical circles brought out from England by Col. Everest for the great Arc, and a set of azimuthal observations on circumpolar stars with the great Theodolite.

The Astronomical latitude of Karachi Observatory on Bath Island thus deduced, is	$24^\circ 49' 49''{\cdot}27$
The computed value brought up from Kalianpoor Observatory near Seronj is	$24^\circ 49' 50''{\cdot}15$
Difference	$0''{\cdot}88$

The Astronomical azimuth of referring mark is $179^\circ 59' 57''{\cdot}43$

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That brought up from Kalianpoor is ... ... 179° 59′57″·74

Difference 0·31

The small differences between the Astronomical and computed values indicate that, whatever may be the deviation of the plumb line at Kalianpoor in Central India, it is deflected by nearly the same amount at Karachi on the Sea coast.

The N. W. Himalaya series was commenced at a side of the great Arc near Dehra Dhoon in the season 1847-48 by Major Du Vernet of the Madras Army. The following year an insurrection broke out in the Saon or Jaswan Dhoon, which drove the whole party from the field. Major Du Vernet with a large theodolite narrowly escaped capture, and one of the sub-assistants was made a prisoner by the rebels, who plundered his property and destroyed his instruments; he was marched off bound to the Rajah of Amb, but after eight days was released by a detachment sent for his rescue. The rebellion was soon extinguished and operations were resumed. Two years afterwards they were again stopped because the Maharajah of Kashmir took umbrage at the occupation of the Mountain of Trikote as a survey station on the plea of its being sacred.

Thus the principal triangulation progressed somewhat slowly, but a large amount of secondary triangulation was executed to lay down the positions of the hill peaks and the chief towns of the Jullundur and Baree Doab and the Cis-Sutlej states.

Simultaneously a topographical survey of the Himalayas was commenced in connexion with the triangulation, being the first time that the members of this survey were ever employed in filling in the details of the ground they had covered with their triangles. These interesting operations were originated under the superintendence of Major Du Vernet, who had been long employed in the topography of Hydrabad and other parts of the Madras Presidency. In the six years between 1848 and 1854, a map of the belt of hills between the Ganges and the Beas River, and the parallels 31 and 33 of latitude, was completed on the scale of four miles to one inch. It has been recently published in degree sheets, lithographed in colors in the office of the Surveyor General, Calcutta, and is now available to the public.

While Major Du Vernet was employed in topography, the triangulation of the N. W. Himalaya series was extended to Attok by Mr. Geo. Logan, who had recently completed the North East longitudinal series, through the Terai at the base of the

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eastern Himalayas, under circumstances of very great difficulty, owing to the unhealthy nature of the tract of country passed through. Mr. Logan's principal triangulation reached Attok in 1853, supplying the requisite elements for the Topographical Surveys of the Rawul Pindi and Jhelum districts, and the northern Trans-Indus frontier, which were commenced in connexion with the Trigonometrical Survey, shortly after the annexation of the Punjab.

The N. W. Himalaya series consists of seventy seven principal triangles arranged in quadrilaterals and polygons, extending over a direct distance of 416 miles. The triangulation, principal and secondary, embraces an area of 33,000 square miles, including snow peaks, and was executed at a cost of Rs. 3-5 per square mile. The stations being all on hills or high mounds, no towers had to be constructed, and the cost of the work per square mile was much diminished by the large areas included in the triangles to the snow peaks. The area topographically surveyed was 33,700 square miles, at a cost of Rs 3-10 per square mile.

The Indus series extends from Attok to Karachi, and is 706 miles in length, the longest of any series of this Survey from base line to base line. Its extremities rest on the hills of Lower Sind and of the Rawul Pindi and Bunnoo districts. But the Soolimani Range to which the triangulation runs parallel, was inaccessible for political reasons. Even the Tukhti Sooliman, the fabled throne of the 'weary King Ecclesiast', whose summits survey a vast extent of country hitherto untrodden by Europeans, the surveyors were reluctantly obliged to turn away from, and leave the frontier without attempting to visit. The Trigonometrical stations had to be restricted for a distance of about 470 miles to the flat and monotonous plains bordering the river Indus, which are rarely relieved by an undulation, or a mound suitable for the Triangulation.

It thus became necessary to construct towers at no less than 113 out of the 148 principal stations, and to clear 230 sides of triangles, whose united length amount to upwards of 2400 miles. The observations were almost entirely taken with the great Theodolite constructed by Messrs. Troughton and Simms for Colonel Everest. Each angle was measured on five zeros 'face right,' and the same number 'face left', three repetitions being taken on each zero; the instrument having five horizontal microscopes, the value of each angle was thus obtained from fifty measures on equidistant parts of the limb, 7° $12'$ apart. There are in all 205 triangles arranged in self-verificatory quadrilaterals

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and polygons;—their average triangular error is 0″·47. The area embraced by the principal and secondary operations is about 35,000 square miles, and the cost Rupees 9-4-0 per square mile.

In connection with the Indus series, a set of levelling operations with the spirit level was instituted with a view to determine the heights of the base lines of the Trigonometrical Survey with accuracy. Values of height had already been approximately afforded by the vertical observations between the principal stations of the triangulation. But such a method of levelling, though susceptible of a high degree of accuracy in a hilly or mountainous region, is beset with many difficulties in a flat country. For it is evident that an object to be correctly observed must first be truly seen. But when both object and observer are low down or only slightly raised, the rays of light they interchange graze the surface of the ground, and traverse a medium which is subject to many variations, being sometimes dense and heavy with moisture, at other times rarified by the heat radiated at mid-day from the surface of the ground. Thus the apparent position of the object varies within wide limits, according as the soil is dry or moist, barren or cultivated, baked by the sun or chilled by night dews; the rays of light being generally refracted more or less upwards, because the denser strata of the atmosphere are usually lowermost, though for a few hours before and after noon, if there are no clouds, the heated ground rarifies the strata of air in its immediate proximity, the denser strata then float some feet above, and rays of light passing below them are necessarily bent downwards and have their paths concave to the ground; the refraction is then called negative.

The following extract from a set of vertical observations taken in the Sind Saugor Doab with one of the great instruments of the Trigonometrical Survey, will serve to show how distant objects, seen over a plain, rise and fall to an extent that is probably little imagined. At the tower of Nar thirty feet high (lat 32° 27′; longitude 73° 19′;) the observations to the station of Goonia, distant 10.53 miles were as follows:—

Date	Hour		Vertical Angles		
			°	′	″
22nd November 1855	2-35	(P. M.) Depression	0	5	45·6
	2-48	,, ,,	0	5	34·5
	3-5	,, ,,	0	5	32·1
	3-37	,, ,,	0	5	25·2
	4-30	,, ,,	0	4	52·6
	10·50	,, Elevation	0	2	240

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Here the signal rose 20″, equivalent to 5·4 feet between 2h. 35m. and 3h. 37m; 33″, or 8·9 feet in the following interval of 53 minutes, and. 7·17″ or 117·8 feet in the next 6½ hours; the total observed change of altitude being equivalent to 132 feet, during little more than eight consecutive hours!

The law is invariably the same; objects are seen at a minimum elevation between 1 and 3 o'clock P. M; they then rise, at first gradually, afterwards very rapidly as the sun sinks and the dew begins to fall, attaining a maximum elevation when the air is most saturated with moisture, which is usually before day-break. As the sun rises, the phenomena are repeated in the reverse order, and the object sinks, rapidly at first, but more slowly as the time of minimum refraction approaches. The limits between which the oscillation takes place will of course vary with the amount of moisture in the atmosphere, the nature of the soil, whether favorable or not to the deposition of dew, the heat of the sun's rays, and the aspect of the sky, whether clear or cloudy.

A few feet of difference in the height of a station of observation on the plains have a great effect on these phenomena. The nearer the rays of light are to the ground the greater and more irregular is the range through which they are refracted. Grazing rays are therefore always objectionable. But it is often impossible to avoid them without a more minute reconnaissance of the ground to be triangulated than is for other reasons allowable. Usually the survey stations in the plains are from eleven to twelve miles apart, at which distance, when raised twenty-four feet above the ground level, they become just high enough to overtop the curvature of the earth, to which the line joining their summits will be a tangent. The instrument and signal stand five feet high on the towers, and thus their mutual rays of light pass on an average five feet over the ground midway, sometimes well above, at other times grazing so closely as to be liable to the extremes of positive and negative refraction. The following figures show how the refraction varies with the height of the rays. At Futti station (latitude 31°52′; longitude 73° 32′;) consecutive observations were taken to the signal on the Moogoo tower, and to an auxiliary signal erected perpendicularly over the other at a distance of 16·53 feet. The towers being 10·74 miles apart, the two signals should have subtended an angle of 60″·1; but their apparent subtenses were as follows:—

				″
7th February 1856.	at 2h.	33 m.	P.M.	73.9
	2	43	,,	69.8
	4	16	,,	58.1

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				"
7th February 1856. at	4h.	33m.	P.M.	48·9
	4	43	,,	41·7

shewing that when the day was hottest the negative refraction in the lower ray combined with the positive in the upper to exaggerate the apparent distance of the signals, while towards sunset the excess of positive refraction in the lower ray over that in the upper produced the opposite effect. On another occasion two signals similarly adjusted, and having a true subtense of 49"·5, appeared to subtend at sunset on an evening after long continued dry hazy weather, an angle of 16"·5, and at sunset of the next day after a fall of rain 35"·6.

Wherever the heat, radiated from the surface of the ground, is capable of rarifying the air immediately incumbent on it, there must necessarily be a stratum of the atmosphere floating at some height above, through which rays of light will pass in straight lines, while on either side they will be bent upwards or downwards.

Thus for a short interval daily, near the time of maximum heat, a distant signal, whose rays graze the ground, will appear in its true position, unrefracted as a zenith star. This is the time of minimum refraction. If the exact moment of its occurrence could be predicted, one of the Geodesist's greatest difficulties would cease, and Astronomers might envy the freedom of his observations from refraction. But the time is rendered variable and uncertain by causes innumerable. A cloud before the sun will cause an object dimly visible in the horizon to start up, sharply and well defined, over all intermediate objects, only to sink down again and perhaps disappear altogether, when 'the wind passeth and cleanseth' the cloud, and the 'bright light' behind again exerts its influence. At this time moreover the air is not in the state of calm repose which comes on towards sunset, but is boiling and seething under the sun's rays, thus giving distant objects an appearance of dancing wildly up and down, and often of gyrating in circles. A signal formed by reflecting the light of the sun from a mirror through a disk of only one inch aperture, which at the distance of ten miles appears no larger than a star when the atmosphere is calm, may be seen magnified nearly a thousand times in the heat of the day, the rays being repeatedly reflected and refracted through the dancing vapours, until they form an apparent column of fire completely concealing the tower on which they are exhibited and often rising to double its height!

Enough has been stated to show the difficulties which beset

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vertical triangulation over the plains of India and the sources of inaccuracy to which it is liable. Great as they are, it is now known that they can be practically overcome by the system, first introduced by Colonel Waugh, of taking vertical angles between 1 and 3 P. M. the hours which limit the period of minimum refraction. But until the Trigonometrical levels had been rigorously tested by a series of spirit levels, they were a source of much anxiety and uncertainty, because, if erroneous, the lengths of the base lines and of all operations emanating therefrom would be affected. The heights of the Ordnance Survey of Great Britain are all based on spirit levels, though that survey has peculiar facilities for checking its levels by reference to the sea, from which no part of England is more than ninety miles distant. In this country, on the contrary, the triangulation extends over a distance of upwards of 2000 miles from sea to sea, without external check of any kind.

Thus the measurement of lines of independent verificatory Spirit Levels became a necessity for the Indian survey. They were commenced on the Indus series, and in two field seasons were carried up to Attok, from the mean sea level of Karachi, which was determined in the Manora Harbour, by a set of tidal observations extending over two semilunations. Numerous precautions were adopted to guard against cumulative and accidental errors on so long a line of operations. The instruments were large and of superior construction, and fitted with delicate levels furnished with finely divided scales on which the deflection of the instrument from horizontality was measured, and a correction applied, as with Astronomical instruments, in preference to the usual method of attempting to correct by hand. The staves were invariably set up at equal distances from the instruments. They were divided on both sides, one painted white with black divisions numbered from 0 to 10 feet, the other black with white divisions from 5·55 to 15·55, in order to check accidental errors of reading; for the successive readings on the two faces should differ by the constant quantity 5·55, so that it is impossible to make the same mistake in both readings, and any error is immediately shown up by the difference in the results obtained from the two sets of faces. As an additional check two observers were invariably employed on the same line, each with his own instrument and staves, one following the other at a convenient distance, station by station.

These operations have now connected the base lines at Attok, Dehra Dhoon, and Seronj with the sea, and have satisfactorily

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established the fact that heights deduced from Trigonometrical verticals rigorously observed with regard to the time of minimum refraction, are not liable either to large or cumulative error. Thus from the Sea at Karachi to Attok, 706 miles, the

Trigonometrical height is	+1011·36 feet
The levelled height is	+1014·60 feet

From Attok to Dehra Dhoon, 416 miles. The

Trigonometrical difference of height is ...	+ 948·11 feet
The levelled	+ 943·05 feet

From Dehra Dhoon to Seronj, 429 miles, the

Trigonometrical difference of height is ...	— 430·10 feet
The levelled	— 428·30 feet

And from Seronj to Karachi, 669 miles. The

Trigonometrical difference of height is ...	—1531·36 feet
The *deduced* levelled difference	—1529·35 feet

On the other hand, there are errors of from 70 to 115 feet in the Trigonometrical heights which were measured before the necessity for limiting the observations to the time of minimum refraction was discovered.

The spirit levelling operations of the Survey are now being employed to connect together all the different lines of levels executed in this country by Canal and Railway Engineers, which will thus be reduced to the mean sea level as their common datum. This very desirable measure was recommended by the late Special Cholera Commission, because in their recent visits to various Military stations in the Punjab and N. W. Provinces, they had found much difficulty in forming a correct opinion as to the merits of existing or proposed works for drainage or water supply, on account of the absence of systematic sets of levels. The suggestions of the commission met with the approval of Government, and orders have been issued for the connexion of levels over the whole of India. The fact is singular, but not wholly uncharacteristic of Anglo-India, that a Geodesical undertaking of such interest and importance and such vast dimensions, should have its origin in a source which would seem to be so utterly incapable of affinity or alliance with Geodesy as Cholera.

The Kashmir Triangulation* originates on a side of the North West Himalaya series, between Sealkote and Goordaspore. It was commenced in the Spring of 1855 by Captain Montgo-

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* We are indebted to the unpublished reports of Colonel Sir Andrew Waugh and Capt. Montgomerie, for much of the information which we are able to give on the subject of the Kashmir Survey.

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merie of the Bengal Engineers, whose name has been so often before the public of late years in connexion with the interesting and extensive operations entrusted to his superintendence, which embrace not only the triangulation but also the topography of Kashmir and Ladak, and of the whole tract of mountains between the British frontier aud Chinese Turkestan.

The Instrument employed in the principal triangulation was a 14 inch Theodolite by Troughton and Simms, the largest of the class of instruments suited for being carried over the stupendous Himalayan ranges.

In the first season the Pir Punjal was crossed under circumstances of great difficulty, the two stations thereon being respectively 15,000, and 13,000 feet high, and the range itself being liable to heavier falls of snow, and more constant clouds and mists than the inner and higher mountains, because it receives in the first instance and arrests the greater portion of the moisture which southerly winds exhale from the Indian ocean to deposit on the summits of the Himalayas. Thus at one station no less than twenty two days elapsed before all the necessary observations were completed, the party engaged thereon being exposed to the most inclement weather, and harassed by constant snow storms accompanied by incessant and severe electrical disturbances, necessitating the carrying about of a portable lightning conductor for the observatory tent. Unusual difficulty was experienced on the snow peaks in building the masonry station pillars. The highest part of the snow was not always over the highest part of the rock. Several shafts had to be sunk in the snow before the true summits could be found. Building material had to be dug out, and the snow had to be melted to slake the lime used for mortar.

The first season's triangulation having been laid out, arrangements were made to form a Topographical party to fill in the details of the triangles. Owing to the small establishments of the Survey, the difficulty of obtaining uncovenanted assistants on account of the competition of other departments of the state created by the recent commencement of Railways and Telegraphs, the sudden increase of public works, and other causes, combined with the length of time consumed in training young hands, and the difficulty of retaining them when trained, application was made to Government for the services of three or four Officers of the Quarter Master General's Department to survey Kashmir during the summer months, returning to their regular duties in the cold season, when field operations in Kashmir are

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not practicable. Three Officers were accordingly appointed to the Survey, and they rendered most valuable assistance during the field season of 1856.

The next year the exigencies of the service did not admit of their return to the Survey. One of them Captain Lumsden, was deputed to join the mission to Kandahar, under his brother the well known commandant of the gallant Guide Corps. The others were actively employed with the troops engaged in subduing the mutiny. Their places were supplied by Officers who were permanently attached to the Department, and have ever since remained with it.

Although the splendid climate of Kashmir and Ladak, added to the special interest attaching to those countries and the adjoining unexplored tracts, make the Survey deservedly a great attraction, still the exposure of surveying in such tracts is very trying to the constitution, and many persons suffer from it. The solar radiation at high altitudes is very great, as was shown and to some extent measured by Professor Piazzi Smyth in his astronomical experiments on the Island of Teneriffe. At the height of 9,000 feet the mercury in his radiation thermometer rose above 178°, the graduated length of the scale, and accumulated to an unknown extent in the bulb at the end of the tube, the Professor estimating that on one occasion it would have reached 212° had the tube been long enough. The radiation increases as the altitude increases and the temperature diminishes.

Under such circumstances, the labor of climbing great elevations is much increased, as has often been noticed by explorers. The surveyor arrives heated with his exertions and has to stand on ridges or peaks exposed to strong cold winds, while he is observing angles or sketching the ground. The alternations of heat and cold, and the laborious exertion, limits success to those persons who to the requisite professional qualifications can add the physical constitution to stand the hardships which the work imposes. It is very doubtful whether the ability to undergo the fatigue and exposure can be reckoned on for a long continuance; and it is believed that, excepting in rare instances, a frequent succession of assistants will be necessary for these extensive mountain Surveys.

But neither the physical character of the country, nor the constant task of training new hands, formed the chief difficulty of a survey conducted in a foreign territory, and which at no time could be expected to be agreeable to the ruler, his officials, and

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people. To them the influx of a body of surveyors spread all over the country, however orderly and well conducted, must bear the aspect of an intrusion. That amicable relations should have been uniformly maintained with the Court of Kashmir is sufficient testimony to the cordiality and good will of the successive Maharajahs, Goolab Sing and his son Rumbeer Sing, and of the tact and ability with which Captain Montgomerie transacted business with the native authorities. His difficulties were much enchanced by the Military Rebellion of 1857, during the whole of which excited period the party continued its peaceful labors without cessation.

Ample testimony to Captain Montgomerie's services is borne in a letter from, alas that we should have to say, the late Lord Canning to Sir. Roderick Murchison, President of the Royal Geographical Society, which we quote from the Proceedings of the Society for 1860.

CALCUTTA, *August 29th* 1859.

'DEAR SIR RODERICK,

'Last month I sent to the Secretary of State for India the 'first sheet of the Great Trigonometical Survey of Kashmir, the 'work of Captain Montgomerie, of the Bengal Engineers, done 'under the Superintendence of Colonel Waugh, the Surveyor 'General of India. To my unlearned eye it is as fine an example 'of topographical drawing as I have ever seen, though the subject 'is one upon which I do not pretend to be an expert judge.

'But I can speak to the difficulties under which Captain Mont-'gomerie's task has been accomplished: not the physical difficul-'ties of the ground only, but the awful discouragement and 'anxiety of finding himself almost alone in those wild mountains, 'the people of which had, to say the least, no sympathy with the 'English rule in India, and surrounded by Hindostanee Sepoys, 'whose comrades and relatives were amongst the most active 'movers in the chaos of murder and rebellion which was boiling 'in the plains below. You perhaps have heard that at Roorkee, 'the Head-Quarters of the Sappers, and at the foot of the Hi-'malayas, the men of that corps early in the mutiny, shot their 'Commanding-Officer at the head of his column, and joined the 'ranks of the rebels.

'Captain Montgomerie, however, by his own courage and tact, 'not only kept his men (soldiers of that same regiment) under 'discipline and got good work out of them, but brought them 'back loyal and attached to the service. They have now good 'cause to thank him.

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'I know that these incidents add nothing to Captain Montgo-
'merie's claims to notice on scientific grounds; but if as I hope
'may be the case, the Royal Geographical Society should con-
'sider that his labors deserve to be noticed for their result, the
'circumstances under which they were carried out may perhaps
'be taken into account. If the Society think this young officer
'worthy of any honor, I shall greatly rejoice, both for his own
'sake and for that of the distinguished corps to which be belongs.

'I believe that there does not exist under any Government in
'the world a body of officers surpassing that of the Engineers of
'the Indian Army in the combination of high intellectual ability
'and acquirements with the most daring and persevering courage,
'if indeed there be any equal to it.

'I wish I had been able to push forward the Geological Survey
'more rapidly in accordance with your exhortations of four years
'ago. But the last two years and a half have given me other
'things to think of, and which is worse other things whereupon
'to spend our money; even you yourself had you been here,
'would have had to turn your hammer once more into a sword.
'I hope however, to get some practical benefit out of the Kumaon
'iron district very shortly in the shape of castings (wrought iron
'will be a longer job); and the recent discovery of the extent,
'much greater than was known, of useful coal fields, not far from
'the line of the East India Railway in Lower Bengal, is a very
'welcome incident. On the other hand, I am sorry to say that
'I have just received a most discouraging report from Mr. Old-
'ham of the hopelessness of finding coal Northwestward of
'Allahabad.

'Believe me, dear Sir Roderick,

'Your's very faithfully,

'(Sd.) CANNING.

'Sir Roderick J. Murchison, &c. &c.

'Belgrave Square.'

Lord Canning appears to have been misled by the circumstance that the Trigonometrical Survey of Great Britain and Ireland is for the most part executed by soldiers of the Royal Sappers and Miners, to believe that in India Native Sappers are similarly employed on the Survey. This has never been the case, and Captain Montgomerie had no Sappers to keep under discipline, nor any Hindostani soldiers but a Havildar's guard from a Native Infantry Regiment. But he had to 'endure 'the awful discouragement and anxiety of finding himself almost alone in those wild mountains,' and his position won the sympathy and

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respect of the great man who knew what it was to have been almost alone in those wild times, and who had borne himself bravely in the boiling chaos of murder and rebellion, always unsympathized with, often vilified. Alas that his wisdom, and his bitterly gained experience should be lost to his country and India for ever!

The filling in of the triangles in the Topographical operations in the Himalayas is effected by Plane Tabling. Numerous points previously fixed by the Trigonometrical operations are projected on the Plane Table chart for the assistance of the Surveyor, to serve as points of origin and verification, and to enable him to interpolate his position on the chart whenever necessary. This method of filling in details is particularly well adapted for rugged and difficult ground, and for Native states. It is independent of measuring chains and all such instruments, which could not possibly be employed in the Himalayas, and would be viewed with considerable mistrust and suspicion in Native states where they might raise the belief that an inventory of lands and property was being taken, with a view to future annexation.

Two scales have been used for the Topography of Kashmir, one of two miles to the inch for the valley and the hills immediately around, the other of four miles to the inch for Ladak and the higher and wilder ranges. A map of the former portion has been lithographed in London, and is now for sale in the office of the Surveyor General, Calcutta. It embraces the country between the parallels of 33°20′, and 34°40′, and the meridians of 74°, and 75°30′, including the Kamraj and Miraj divisions of the great valley, and the numerous small vallies leading into them from all sides, the Woolar and other lakes, the cities of Sirinuggar and Islamabad, the Pir Punjal and Rutton Pir ranges, with their passes of the same name, the Murbut and Banihal passes, and the vallies of the Banihal, Rajaori and Kohi districts, near the British frontier.

Several copies of this map have been handsomely bound in velvet and silk, in mindful deference to a Sikh's prejudice against common leather binding, for presentation to the present Maharajah of Kashmir, who was greatly pleased to receive them and gave directions that the English names, should be translated, into Persian for his own use and that of his Court.

By the end of last season the districts of Dras, Sooroo, Kurtse, Kargil, Baltistan and the plains of Deosai, had also been completed, with portions of Ronyul, Ladak, Zanskar, Rupshee, Nubra and Astor or Hasora;—these last have to be finished, as well as the districts of Hanle, Yanktse, and Pangong which have still to

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be surveyed, together with as much of the adjacent frontier of Chinese Tibet and Tartary as can be approached. Already the operations extend from lat. 32° 20′ to 36° 12′, and from long. 72° 48′ to 79° 31′.

Captain Montgomerie reports that 'year by year as the Sur-'vey has advanced, the physical difficulties have increased; the 'average height of the stations has latterly been from 17,000 to '20,000 feet above the sea, though fortunately the quantity of 'snow has not increased in the same proportion as the height. 'Indeed beyond the Himalayas the snow has been less than on 'lower peaks of the outer ranges, but, on the other hand, there 'has been a great increase of hardship from the sparseness of 'population and from the difficulty of procuring food and fuel, 'the latter being particularly felt in such inclement regions. 'For a time the surveyors have been entirely dependent on argols 'of Yak and other dung for fuel, occasionally aided by the thin 'roots of the Tibetan furze which can be grubbed up here and 'there.

'At first the population dealt with could all understand Hin-'dustani, but latterly hardly any of the inhabitants have had 'the least idea of that language, and communication in Little 'Tibet and Ladak has been necessarily carried on by means of 'interpreters.

'Notwithstanding the great elevation of the country surveyed 'and the consequent severity of the climate, the rigorous rules 'of the G. T. Survey have been adhered to throughout.

'Luminous signals, either heliotropes* or reverberatory lamps, 'were used even on stations from 15,000 to 19,000 feet above 'the sea.

'The Hindustani clashees of the Survey seemed to have a real 'pride in serving the instruments entrusted to their charge. No 'matter what the weather might have been, and though the snow-'falls on the stations were occasionally so heavy that rays had to

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* A heliotrope is a circular mirror fitted with mechanism for vertical and horizontal motion, that it may be turned by hand so as to follow the motion of the sun and reflect rays in any required direction. It is usually 10 to 12 inches diameter to be capable of sending flashes powerful enough to attract notice at a distance. As, however, so large a blaze of light would dazzle the eye of any one observing it through a powerful telescope, the heliotrope is supplied with diaphragms, like the stops of a photographic camera, to regulate the diameter of the transmitted pencil of rays, which is usually made about a tenth of an inch per mile of distance from the observer.

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'be cleared through the snow, yet the signal men were always 'ready to show their heliotropes and lamps.

'As a general rule they responded at once to the observer's 'signals.

'A heliotrope shining out from the top of a snowy cone was 'by no means an uncommon sight, and its effect can be better 'imagined than described.

'The difference of elevation between the stations being usually 'very large, orders were transmitted to great distances by means 'of the heliotropes.

'Altogether great credit is due to the natives of the plains 'who served the signals at such elevations in such a rigorous 'and to them uncongenial climate.

'The commissariat and financial arrangements for a large Sur- 'vey party were in themselves very difficult. Food had some- 'times to be carried fifteen to thirty marches. Ready money pay- 'ments had to be made to the Tartars. The transmission of letters 'was not easy. Besides which numerous other difficulties naturally 'occur in carrying on survey operations over a vast tract of the 'most rugged and elevated country in the world. Altogether 'this Survey formed a very complicated task as will be readily 'admitted when the extent of the country under Survey is known 'to nearly equal the area of Great Britain, and to be in many 'places destitute for seven to fifteen marches of all the necessaries 'of life except water, which even occasionally failed, nothing but 'salt water being procurable.

'The junction which has been made between the Kashmir 'series and the North West Himalaya series in the neighbour- 'hood of the Barra Lacha Pass gives every confidence in the 'accuracy of the results, which indeed is remarkable, bearing in 'mind that the junction made is between secondary stations.

'In a total circuit of about 890 miles, of which nearly 500 'appertain to the Kashmir series, there is only a discrepancy 'of eight-tenths of a second in latitude, and one-tenth of a 'second in longitude, and a difference of 4⅞ feet in the height 'of peaks over 18,000 feet, after levelling across mountains of 'every altitude, from the plains up to 20,000 feet,—a result which 'must be considered decidedly satisfactory.'

In the seven years 1855-61 the triangulation executed by the Kashmir party has covered an area of 93,500 square miles, executed at a cost of Rs. 2-9 per mile, while 47,000 miles have been topographically filled in at an additional cost of Rs. 1-12. For some years nearly one third of the whole strength of the

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Trigonometrical Survey has been concentrated on these interesting operations.

The numerous notices which have been published from time to time in the Journals of the Asiatic Society regarding the progress of the Kashmir Survey, and which have usually been reprinted in the columns of the local newspapers, render it unnecessary for us to dwell much longer on this the most interesting and popular section of the Trigonometrical Survey. The latest accounts mention the discovery and survey of great glaciers by Captain Austen in the Braldo and Baska branches of the Shigar Valley,—the Baltora glacier no less than 36 miles long, the Biafogause, nearly as long and forming with the glacier on the Nuggair side, from which the watershed is not sufficiently marked to part it, a continuous mass of ice nearly 64 miles in length, unequalled in dimensions by any known glacier out of the Arctic regions. Capt. Melville has recently added photography to his topographical operations, and has commenced a series of very admirable photographs, which we hope soon to see published, in illustration of the inhabitants and the scenery of the districts under survey.

Each succeeding season some surveyor ascends higher than he or either of his comrades had ever done before. The latest and greatest exploit of this kind was achieved by Mr. Johnson, who took observations at a station more than 20,600 feet above the sea or upwards of 600 feet higher than any on which a theodolite had been previously up, though a mark has been erected as high as 21,480 feet. The height of Mr. Johnson's station, be it remembered, has been rigorously deduced from reciprocal trigonometrical operations, and not obtained by boiling point thermometers, which scientific explorers have been known to employ, and flatter themselves they had reached altitudes never before attained, while in reality their fancied exaltation was caused by their not having enough fuel to make water boil. In the Survey, thermometers are only used when it is required to fix the height of a pass, or other position which cannot be seen from any of the Trigonometrical stations. But the thermometers are invariably boiled in the first instance at the nearest convenient stations above and below the places where they are to be employed. Thus their boiling points become known for certain known altitudes, and it is hence easy to find by interpolation the altitudes corresponding to intermediate boiling points. All the errors to which these instruments are liable are more surely eliminated by this process, than by any other.

It is a singular circumstance that the heights of the mountains

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around Kashmir have been generally greatly under-estimated by all the scientific travellers who visited the valley previously to the operations of the Trigonometrical Survey. They obtained the mean height of the valley very closely, but the great Nunga Purbut, which reaches a height of 26,630 feet, was supposed by Vigne and Cunningham to be only 19,000 feet high, which is nearly a mile and a half less than its true altitude; while the Huramook mountain was under-estimated by 3560 feet, a mistake the more curious because the mountain is so near Sirinagar that its summit may be seen by reflection in the lakes, and its altitude can therefore be easily measured with a sextant. These mistakes created the erroneous impression that the mountains of the Western Himalayas are much lower than their Eastern sisters, which is far from true ;—on the Karakoram Range a peak has been discovered whose height is 28,290 feet, the highest known mountain in the world after Mount Everest.

We have placed among the publications at the head of this article the first volume of the results of the De Schlagintweits' mission to India and High Asia, as it gives values of the Geographical positions of several places subsequently fixed by the operations of the Trigonometrical Survey in Ladak and Thibet, which therefore serve as a measure of the accuracy of the methods of observation adopted by the members of the mission.

We do not share the annoyance which has been so extensively occasioned by the selection of foreigners instead of our own countrymen for these interesting scientific enquiries. So long as science is advanced it matters little who are the instruments employed in its promotion. Our rulers fall into no very uncommon mistake when they prefer and show most honor to the prophets of science of countries other than their own. Nor is the selection without its advantages, for the work done is likely to be all the more thoroughly analyzed and sifted; its errors will be more certainly and speedily exposed; while all in it that is good and valuable will find friends enough to espouse and protect it.

While we readily acknowledge the extent of valuable information collected by the learned pupils of the illustrious Alexandre Von Humboldt, we cannot but wish that they had published the result of their labours with less pretension and elaboration. We believe that the astronomical and magnetic observations contained in their first volume might have been very easily and with great advantage compressed into one small octavo volume rather than expanded over a large quarto. We confess to feeling somewhat appalled on learning that eight more such quartos are

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still in store for us to hunt through, and patiently attempt to extract the wheat from its husk.

We find no less than seven pages of quarto devoted to the details of a few latitude and longitude observations at Leh, depending on a small Theodolite and Chronometer. Elegant as is the process by which they are reduced, we do not feel much interest in the details of the differential equations, or their treatment by the method of least squares, and we doubt their utility as much as we dislike their ostentatious display, when we find that the resulting longitude is erroneous by about 22 miles, being 77°14′36″ instead of 77°36′42″ as subsequently determined by the Trigonometical Survey. We are not surprised at the amount of the error, as the observations were dependant on a single Chronometer which had been rated at Simla four months previously, and had meanwhile been carried over the highest mountain ranges in the world. But we think the Messrs De Schlagintweit should have been more cautious in adopting their thus obtained value of the longitude of Leh, in preference to that given in map * of the Punjab (1854),* which they merely notice with the remark that 'it makes the longitude more than 20' farther to the East.'

From Leh northwards their map exhibits a series of western proclivities culminating in Tibet and Turkestan, where the chief towns are placed about 2° west of the positions hitherto assigned them, for the most part by the astronomical observations and itineraries of the French Jesuits in China. It is much to be regretted that the Missionaries were unable to extend their triangulation of China to these provinces, but, so long as they remain the only European geographers who have visited these countries, and have been allowed to take observations without molestation or hindrance, we must adopt their positions, however roughly determined, in preference to any other values. Humboldt makes the following remarks on this subject in the second volume of his Asie Centrale:—

'Je pense qu' aussi longtemps que dans les mêmes points on
'n'aura pas fait de nouvelles observations astronomiques, il est
'prudent de conserver les positions adoptées par des personnes
'qui non-seulement avaient l'habitude d'une discussion sévère des
'directions et des distances, mais qui ont pu se livrer à ces
'discussions dans l'interieur même de l'Asie.'

The Survey operations have fixed the positions of the Ka-

* Published under the superintendence of Captain Thuillier, at the Office of the Surveyor General, Calcutta.

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rakoorum and Mustak passes which are within twenty marches of Yarkand, and we know that the prevailing impression of the officers employed in these operations is that Yarkand is slightly to the East of the position assigned by the Missionaries, whereas the Messrs De Schlagintweit place it 2°, or about 120 miles, further West. They make a similar alteration in the position of Lake Sirikol in the Pamer mountains, most unjustifiably we think, for its longitude was determined in person by Lieutenant Wood of the India Navy, the only European who is known to have visited the lake during the present century, and who moreover was a very skilful observer and geographer.

Bokhara they place, without visiting, 2½° west of the position hitherto assigned, and Toshkend upwards of 4°; on which an eminent geographer has remarked that 'if the Aral were to 'recede in the same proportion, it would fall into the Caspian.'

These hasty and inaccurate alterations are not creditable to their authors, who were evidently in a hurry to furnish the public with the fruits of their labours, of the value of which they do not seem to have had any misgivings. We doubt whether any geographer would adopt their positions instead of those hitherto accepted, and we are not surprised to find that in a map of 'Asia between the parallels of 20° and 60°, recently published in the Office of the Surveyor General, the original values of places in Tibet and Turkestan have been used in preference to those adopted by the mission to 'High Asia.'

We must now bid farewell to these interesting topics, and continue our narration of the progress made by the Survey in other parts of India since we last reviewed its operations. Our limits warn us to be brief, nor do we care to inflict on our readers the dry details of the ordinary operations of the Survey. Few persons have any idea of the labor they often involve. The mere measurement of the angles of a triangle would seem to have nothing so difficult about it, but that a slight training would enable most persons to acquire the necessary skill in manipulating the large Theodolites. But the successful carrying of a connected series of triangles, without a single weak link in the whole chain, along any given direction, without turning to the right hand or to the left, whatever the nature of the country or the obstacles to be crossed, is a matter of no small difficulty, and requires a rare combination of energy, judgment, and physical ability. The number of measures of each angle which have to be taken, and repeated on different parts of the graduated circle, to eliminate accidental and instrumental errors, entail an amount

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of labor which is little imagined. Often in the morning, always from noon until sunset, and afterwards for at least half the night, the observer is at work, watching his signal heliotropes and lamps through all their mazy wanderings, and patiently trying to make his telescope bisect their paths. Years ago Colonel Everest wrote as follows, of the difficulties of carrying a rigorous triangulation over the plains.

'The smoke from the daily and nightly fires, which, particularly in the cold season envelopes the villages and clings to the groves surrounding them; that arising from brick and lime kilns and conflagration of weeds; the clouds of dust raised by herdsmen and their cattle, in going out to graze in the morning and returning in the evening; by travellers and processions of men, carriages and cattle proceeding along the divers roads for business or pleasure, and by the force of the wind, the slightest action of which suffices in this arid parched-up soil to obscure the view, form an assemblage of obstacles which it is only possible in very favorable contingencies to surmount.'

These favorable contingencies only occur for short intervals which happen at very varying times of the day and night; and thus the observer has to be constantly on the watch that no opportunity may escape him. Few persons, but those who have tried, know the wearisomeness of ten or twelve successive hours, or even half that time, spent in an observatory tent measuring angles. Great is the amount of strong green tea which has to be imbibed at night on these occasions, to keep the observer from falling down asleep on his instrument. And the results so laboriously obtained are not of a showy nature. The chart of triangulation possesses far less general interest than the topographical map of which it is the basis. It is no slight addition to the ordinary discouragements of the triangulator that his labors are so slightly appreciated, while those of his comrades of the pencil and color box are so highly prized, and he needs considerable hardiness and pertinacity to carry his work steadily forward, heedless of the soft seductions of local authorities, who are ever anxious to catch hold of a Surveyor, and employ him on making maps to illustrate their favorite projects, for the amelioration and development of the districts under their control.

We might enlarge on the other trigonometrical operations which have been carried on simultaneously with those we have already described. But we have promised not to inflict dry details on our readers, so we will merely state that they comprise the following principal series of triangles with their usual

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accompaniments of secondaries; a double series from Purneea eastwards to Gowhatty, and thence to Sylhet;—another along the East coast from Calcutta to Vizagapatam;—a third, West of the great Arc, along the meridian of Rahoon, from the Himalayas to the Calcutta longitudinal Arc;—a single series, laboring under the cruel appellation of Goorhagur, because it unfortunately has for its meridian the Goorhagur Station of the N. W. Himalaya triangles, though we think it might with greater intelligibility and equal propriety have been termed the Umritsar series, as it follows the meridian of that city,—is the southern extension of the Kashmir triangulation to the longitudinal Arc;—a meridional series, provokingly denominated the Jogi Tila, from Jhelum to Pak Puttun;—an oblique Sutlej series from Mittun Kote to Pak Puttun;—and several small longitudinal and meridional series in the northern portion of the Bombay Presidency, the triangulation of which is now completed.

In the twelve years since 1849, to which year Colonel Waugh's Blue Book gives the details of the progress of the Survey, the following amount of work has been executed:—

Himalayan Triangulation,...	161,011 sq. miles.
All other Triangulation, ...	171,112 „ „
Amounting to, ...	332,123 „ „
Himalayan Topography, ...	89,895 „ „

Spirit leveling (commenced in 1858) ... 1629 linear miles.

In other words, the triangulation performed in these twelve years covers an area nearly treble that of Great Britain and Ireland, of which a portion almost exactly equal to England, Scotland and Wales* combined, has been topographically delineated in the Himalayas, on the scale of four miles to the inch;—in addition a line of levels has been executed, which is probably the longest ever measured in any part of the world. The average cost of the Triangulation, including superintendence, head quarters offices, special astronomical observations,

* The following areas are taken from Black's Atlas—

England,	50,898	square miles.
Wales,	7,430	„ „
Scotland	32,164	„ „
Ireland,	31,874	„ „
Total	122,366	„ „

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and all charges other than Military salaries connected with the department, has been less than Rs. 9 or eighteen shillings per square mile, while the Topography has cost less than Rs. 3-8, or seven shillings.

During almost the whole of this period the Trigonometrical Survey was superintended by Andrew Scott Waugh of the Bengal Engineers, who was appointed to its charge, together with the Surveyor Generalship of India, in succession to Colonel Everest, in the year 1844, while he was still a subaltern. After holding the combined appointments for seventeen years, he resigned the service in March 1861 as Major General Sir Andrew Waugh, having been knighted by the Queen in acknowledgement of his services to Geography.

Colonel Everest who for so many years was the iron chief of the Indian Survey, and who enjoys the rare merit of having initiated methods of operation and formulæ of computation of superior rigor and accuracy to any ever before employed, and who never did any thing by halves, wrote thus strongly in favor of Lieutenant Waugh on recommending him to the Hon'ble Court of Directors as a successor to himself.

'He is beloved and respected by all the subordinate members 'of my department and held in honor and esteem by all who 'know him personally; his talents, acquirements and habits, as a 'scholar, a mathematician, a gentleman and a soldier are of high 'order, and as such I feel that in recommending him as a fit 'person to succeed me, I do but perform the last essential service 'which I may ever have it in my power to render to masters from 'whom I have received so many acts of kindness, and to whom 'my gratitude will be for ever due.'

While his labors in the service of Government were unremitting, he at the same time succeeded in winning the regard and affection of his assistants to an extent which few heads of departments are fortunate enough to obtain. More particularly was he beloved by that large and important section of the Survey whose members belong to the Uncovenanted Service, which has furnished the department with many true men and brave, who have worked side by side with their military Officers, and vied with them in readiness to undergo fatigue, exposure and privations of every kind, and one of whom at present holds the palm of having ascended the loftiest Himalayan summit yet reached by any surveyor.

Sir Andrew's kindness and consideration were most displayed where most needed. And he has bequeathed to his successor in

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the Superintendence of the Trigonometrical Survey the task of retaining the regard and esteem which has thus been created for the Head of the department.

A few words on the future operations of the Trigonometrical Survey may fitly close this Article.

The greater portion of the triangulation of India Proper is now completed, and only three meridional series, East of the great Arc and South of the Calcutta longitudinal series, remain to be done. One of these will extend from Jubbulpore to Madras, and might afterwards be continued Southwards to Ceylon. West of the axis of Indian Geography four small series have still to be completed, the Southern continuation of the Jogi Tila, two meridional series in Rajpootana between the Sutlej and the Karachi arc of longitude, and one on the meridian of Mangalore between the parallels of Mangalore and Bombay, in southern continuation of the Khanpisura series, which is again a continuation of the Goorhagur and Kashmir series, all being nearly on the same meridian. Mangalore and Madras should be connected by a longitudinal triangulation, crossing the great Arc at Bangalore, where there ought to be a base line. The series of triangles on the meridian of Madras and Mangalore will thus become especially valuable, as additional arcs for the determination of the figure of the earth; their lengths may be made as much as 11½ degrees without bringing their northern extremities into dangerous proximity to the plummet-attracting Himalayas.

Of most immediate importance is the extension of the Calcutta longitudinal Arc to the Eastern Frontier, which is required for the Atlas sheets of the districts East and North of Calcutta. It will probably be taken in hand immediately, and as the triangulation is not of great length, we may hope at no very distant date to receive the long delayed Atlas sheets of these districts, which are so much wanted.

Formidable is the task which awaits the Trigonometrical Surveyors on the Eastern frontier. Their triangles have to be carried through independant Tipperah, Chittagong and Arracan into Pegu, thence into the Tenasserim Provinces and down the Malayan Peninsula to Singapore. The greater portion of this vast distance is covered with dense jungle, through which in many parts roads have not yet been constructed. This sort of ground is the most difficult of any for Survey operations. When the Surveyor who is reconnoitering for stations reaches the summit of a hill, instead of seeing the country around mapped out before him, enabling him almost at a glance to decide on a

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line of operations, he has often to spend days in cutting down trees to open out the view, perhaps to find all his labor lost, because some other hill, before invisible, is discovered to intervene between him and the objects he wishes to see.

A longitudinal series of triangles has to be carried eastwards from Gowhatty to the extremity of the Assam valley, where a terminal base line should be measured which will be nearly on the same meridian as the base line to be measured in Pegu.

It is hoped that our relations with the Burmese Government may allow of the connexion of the Assam and Pegu base lines by a meridional series passing through Ava, which will be a fitting boundary to the eastern triangulation of British India and its dependencies.

On the completion of the topography of Kashmir and Ladak, which may be expected in one or two more seasons, unless the falls of snow are unusually severe, the surveyors will be transferred to take up the topography of Kumaon and Gurwal. We hope that arrangements may be made with the Nepalese Court for the extension of the Survey into Nepal, which is a very great desideratum, not only for the ordinary practical purposes of a survey, such as affording local information and opening out routes for trade, but for the sake of Geographical science. Higher mountains than Mount Everest may still await discovery in the interior ranges, which the jealous and exclusive policy of the Nepalese has hitherto concealed from the gaze of our surveyors. Surely Jung Bahadoor might with a little exertion be persuaded to imitate the liberal and enlightened policy of the Ruler of Kashmir, for recent events ought to have disabused him of the now puerile idea that the entrance of Europeans into a native state is but the precursor of its annexation to the British dominions.

While the more purely practical operations of the Trigonometrical Survey will be carried on as rapidly as the strength of the Department will permit, opportunities of adding to the stores of Geodesical science will not be lost sight of. It is in contemplation to carry a series of Astronomical observations for the determination of latitude down Colonel Everest's great meridional Arc, and another series along the longitudinal arc between Calcutta and Karachi. These may be expected to throw some light on the question of local attraction, as well as to give a more correct mean figure of the Indian arc than can be deduced so long as the Astronomical observations are limited to its centre and extremities. The Mangalore and Madras arcs will also be valuable contributions to Geodesy.

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But an operation of greater interest and importance will be the employment of the Electric Telegraph, which now connects the remotest parts of British India, to determine Astronomical differences of longitude between the most important Stations of the Survey. Thus an Astronomical arc of longitude extending from Rangoon to Karachi, of no less than 30° in length, will be eventually measured, and when compared with the Trigonometrical value of the same Arc, will throw light on the figure of the Earth. The Telegraph lines which are now in process of construction between the Mediterranean Sea and Karachi will be employed as links of a chain of operations which are required to determine the difference of longitude between India and England, and will be further useful in fixing the longitudes of places in Egypt, Arabia, and Persia, which no Trigonometrical Survey is likely to reach during the present century.

Whether Submarine Telegraphs will ever succeed in Indian seas is very questionable, but it is probable enough that sanguine capitalists may expect them to do so, and risk the venture. We entirely approve of a suggestion which has been made to Government to allow Officers of the Trigonometrical Survey to accompany all such enterprises, more particularly those of which the eventual success is most doubtful, in order to take advantage of the primary success which, though often short-lived, has always hitherto attended these operations. Had a few Astronomers accompanied the expedition for laying down the Submarine cable between Suez and Karachi, and been furnished with the requisite instruments, they could easily have taken a sufficient number of observations for determining the arc of longitude, during the time that communication remained perfect. Thus the cable would have been the means of effecting at least one object during its ephemeral existence.

The Survey does not yet possess suitable instruments for these purposes, but we understand that the Secretary of State for India has most promptly and liberally sanctioned a recent application for them, which was supported by the Astronomer Royal. In order that their construction may be efficiently superintended, Sir Charles Wood has secured the services of a retired officer of the Trigonometrical Survey of India, Colonel Strange, whose mechanical skill has contributed in no small degree towards perfecting the instruments of the Indian Survey, and whole successful execution of the Western Longitudinal Triangulation we have already noticed in this article.

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ART. III. Mr. Seton Karr's *Letter to the Secretary to the Government of India, dated 19th October*, 1860.

YEARS ago, the question was debated as to what scheme the Government should adopt for the education of its millions of British Indian subjects. It had done a good deal, in years gone by, to encourage first the cultivation of Oriental classical learning, and then that of English literature and science; but next to nothing for the enlightenment of the masses. The state, however, was in financial difficulties, and could not, in consequence, afford to be over-liberal with the public funds. Still the time was assumed to have arrived, when something should be done for the cause of popular education. The Home Government was importunate and sent out a despatch, laying down a broad and liberal policy. As results, we have Universities at the Presidency towns, an expensive Department—speaking comparatively—for direction and inspection, a few Vernacular Schools, scattered over the country, and a grant-in-aid system, which is inoperative, because premature; but still no general scheme, which reaches the masses, or is in any degree adequate to their wants and numbers. Our educational funds, as it appears to us, have been in the main devoted to forcing embryo 'Masters,' and 'Bachelors,' in supplementing or supplying the funds of schools, where native lads are taught to 'murder the Queen's English,' and, in short, in benefiting a class or sections of classes, who, while they have most desire for a little education—a desire the offspring of a keen perception of its practical and immediate utility to themselves—are, at the same time, just the class who are quite able to pay liberally for their share of the benefit.

The question was debated, we have said, and now after the lapse of two or three years we have had published a summary of the results of the debate as far as Government took part therein, with the outline of a scheme founded on those results. The publication of this summary, so long after date, if it mean any thing, must surely point to a revival of 'the previqus question,' to a desire on the part of Government to ventilate anew the subject of popular education, and its willingness, with the prospect of improving

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finances, to undertake more than it has done for the popular cause, in this very important item of its duties and obligations. In this view the apparent purposelessness of now promulgating the late Bengal Secretary's letter of the 19th October 1860, so long after the subject of discussion has passed from before the public, is satisfactorily and sufficiently explained.

It is not our purpose to analyze, to approve or combat the conclusions or suggestions of this letter: many of them are precisely our own. But the whole system, so constituted, we presume, has been on practical trial ever since, with what success is fully known to those only, who may be behind the Departmental screens; for scant of late has been the information made public on the subject. At this juncture, however, we desire to offer certain suggestions on the subject of the education of the people by means of their own Vernacular, which were put on paper, and intended to have been put forth when that question was first broached. And the same excuse, that to our apprehension suffices, as above hinted, for the justification of Government, in now, after the lapse of years, giving to the public Mr. Seton Karr's letter of the 19th October, will perhaps be admitted also in our own case.

We have a further apology to make. British India is an extensive empire, embracing within its limits races who present a great variety in their physical and moral aspects, in language and creed, temper and intelligence, customs and prejudices. The same observation applies with truth, in a less degree, even to those provinces into which the empire is sub-divided. No one, without such extensive experience as is possessed by few, is competent to enunciate from his own little corner of the country, views and opinions, plans and propositions, which shall be equally applicable and suitable to all these varying races and conditions. The broad principles of a policy, may be the same for North and South, East and West. But when we descend to practice, to the adaptation of a policy, to the elaboration of a scheme or plan by means of which it is to be applied, and its objects are to be attained, special considerations, peculiarities, and prejudices, varying with latitude and longitude, require attention and allowance. It is on this account that our suggestions in this paper shall entirely, and our remarks generally speaking, be limited in their reference to a small section of the Lower Provinces, namely, to the Province of Orissa, as at present defined. In this section of the country, we have well defined and moderate limits to work within, and a sufficiently numerous population, with a well defined character

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and distinct dialect, to work upon. There is a great call for experiment here, especially if we consider the backward condition of the Province, and the comparatively slight efforts that have been made to improve and advance it; and that here, just as much as elsewhere, we have not yet succeeded in our quest after what shall be a popular, practical and practicable plan of Vernacular education.

It may perhaps be proper for us in the first place to glance slightly at the character of the people with whom we have to do, in so far as it concerns our subject.

The people of Orissa prior to the commencement of the present century had, for many years, been under the iron rule of the Marhattas, a rule, as far as Orissa was concerned, pre-eminently rapacious and selfish, cruel and unscrupulous. The country was held by them latterly solely for the revenue it could be made to yield, in the same spirit that first prompted the robber hordes of its conquerors to overrun and plunder it from time to time, long before they acquired such title, as they at a subsequent period possessed, more regularly to collect and appropriate its revenues. Revenue was with them the main point. To the blind and short sighted policy of these barbarians, the improvement of the country by facilities of intercommunication, the prosperity and contentment of the people, not to mention their education, were subjects that never suggested themselves. If a native Oryah appeared on ordinary occasions with a decent garment round his loins, the circumstance was assumed to indicate that he was better off than he should be, and he had to pay for his temerity. If the wife of a native Oryah exhibited herself in public with a ring in her nose, or a pair of valuable bangles on her wrists, she was marked, and the Marhattas knew only too well how to turn such a circumstance into money. Force and fraud were the only laws familiar to the rulers and the ruled, and from long habit, resort to the former appears almost a necessity in some parts, even in these days of courts and litigation, while the latter has become a habit of mind, so inveterate as to force the inference that the people do not regard it as a vice. Those who have been in familiar contact with the people, more especially in places at a distance from the centres of population, will have observed traits of character, and heard popular proverbs, illustrative of what has been said above.

A long reign of oppression of this description, has obliterated all the better qualities, which, we may suppose, existed in the character of the old Oryah. His was ground to the earth, till

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he became an abject slave, without a spark of independent feeling, pride or self-respect. He had been taught by long hereditary, as well as by personal experience, to regard with suspicion every motive and action of his masters, until his mind became diseased, and this remains its now normal condition. He was reduced to that state of destitution, in which truth and honor appear but expensive luxuries. Such we found him in 1803; and his character at the present day bears a close likeness to this picture.

Out of such a long night of mental darkness and physical oppression he suddenly emerged, when the British wrested the country from his oppressors, at a date that may almost be called recent; and because he did not at once open his eyes to the light, and his mind to the liberty that then burst on him, and because his old habits still clung to him, his new masters, or his more favored neighbours, delight to designate him the Bœotian of India. The ancient Bœotia produced Pindar and Plutarch, and the modern one seems also to have produced at least one man of genius, Mrootunjoy, who in 1803 was at the head of the establishment of Pundits at the College of Fort William, as first constituted by Lord Wellesley, and is said by a late writer, no doubt thoroughly informed on the subject, to have been a 'Colussus of literature, his knowledge of Sanscrit classics unrivalled, 'and his Bengalee composition never surpassed for ease, simplicity and vigor;' he was one of the principal teachers of the learned Dr. Carey.

Nearly as much as has been said of the Oryah, might perhaps be said of the Bengalee, and Hindoostanee many years ago; but neither was so subjected to the Marhatta rule. The Mogul rule at least was not so pre-eminently selfish and rapacious; and a great deal of the comparative advancement of the Bengalee may be attributed to his much prior contact with Europeans. In due time, the same results will exhibit themselves in Orissa as in Bengal; but the life of a generation forms about the same measure of the progress of a nation, as perhaps the period of a year in that of an individual, we cannot therefore expect any sudden change. It must also be allowed, that the debasing creed of Hindooism, as at present received, appears always to have had among the Oryahs its most faithful votaries, and caste one of its strongest holds—a fact that has no doubt contributed not a little to the degradation of the people.

Such then, practically speaking, is the character of the Oryah to this day—naturally suspicious and apprehensive of all motives

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and actions on the part of his rulers, especially of such as tend most directly to elevate and improve his condition, as education, any system of Municipal Conservancy &c., because be cannot understand disinterestedness, or the moral obligations of duty. Far behind his neighbours in means to make himself comfortable, with a natural bent and relish for fraud and chicanery, and when these can secure any private ends of feeling or profit, resorting to them without scruple; wedded to his conservative and barbarous superstitions, and yielding a blind and unquestioning obedience to his spiritual teachers.

Now, few Oryahs from personal experience are able to appreciate the value of a good education. They have never been well educated themselves; they cannot therefore comprehend the refined argument that knowledge is to be acquired for its own sake. Nor can they, on the other hand, see that there is much force in the more practical argument, that knowledge should be acquired for the advancement and material advantage it secures. The former is a proposition that can be addressed to a civilized and enlightened people only. In reply to the latter, the Oryahs say:—our children must be, generally speaking, what we are, they must follow for the most part the same handicraft, profession or trade, and for this purpose no particular education is necessary. As for Government service, we do not see the advisability of putting ourselves to straits now, with the view of hereafter securing it for our sons. Government service is a will-o'-the-wisp, which we should never be able to approach; 'for all the chief subordinate offices, civil, fiscal and judicial, are occupied by Bengalees; every department swarms with their kith and kin. What chance have our sons under such circumstances, to succeed in their efforts to obtain Government Service without interest, where interest is all prevailing? And there is force in this rejoinder; for in the list of subordinate employés, the Mookerjees, Banerjees, Boses and Ghoses, and other uncouth Bengalee patronymics preponderate; the Musalmans are not a few; while the Dass, the Patnaick, the Pudhan the Mabanty and other Oryah caste names are in the minority. Out of about 550 employés in the offices, Sudder and Mofussil, of the Magistrate, Collector and Salt Agents of the Province, as reported in 1859, and making a deduction of 120, on account of Canoongoes, whose posts are hereditary, only 216 were Oryahs, while 224 were Bengalees, the rest Musalmans. Setting aside the past few years, there is no doubt, the Bengalee candidate has been preferred to the Oryah, not so much because

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he was more fit, as because he was backed by the interest of the Sirishtadar or other head native officer, and aided not a little by the Bengalee sympathies of the 'Hakim.' Had not this been the case, had a larger degree of patronage been extended to the Oryah, as having more right to local appointments than strangers, and due allowance made for the disadvantages under which he had labored, as compared with the Bengalee, the desiderated impetus to education would have long ago been given, and would now be shewing results. Recent rules, however, and a more impartial consideration for the Oryah, have already begun to work a change in this respect; and the Oryah begins to believe, that education is likely to benefit his children. We may thus hope, that the necessary movement has begun at all events, and there is no reason to doubt, that there needs only a practical plan of education, adapted to the character and resources of the people and patiently and steadily persevered in by duly selected agents, to give education a firm footing in the Province.

We need not stay to argue the obligation of Government to educate the people. That it is our duty, in consideration of the debased and ignorant condition in which we find them, to shew them what their duty and interest should lead them to do for themselves; to place within their reach the incentives to, as well as the elements of, enlightenment, civilization and advancement, is plain. But it is not so plain, that Government is bound to cover the country with expensive schools, normal and model, and to take the entire education of the people into its own hands, and at its own exclusive expense. Example and assistance appear to be all that Government is required to afford, and in the due and judicious application of these principles to a broad, suitable, and practicable basis lies, in our humble opinion, the secret of a successful Government scheme of general education for Orissa.

To what plan or basis shall these principles be applied, so as best to meet the idiosyncrasies, the prejudices, and the condition, mental and material, of the people? Would it be best to ignore altogether their own efforts in the way of education, feeble and misdirected as they are, and at once to inaugurate a new system on the part of Government, altogether independent of those efforts? Or would it be advisable rather to supplement them and to introduce such elements of improvement and progress, as would gradually work out a more perfect and satisfactory scheme, without any violent change or innovation? To graft on the old stem, which has sturdy and strong roots, new branches of a more

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generous kind, rather than to uproot or even neglect it and substitute a sapling, new to the soil and climate, which would be long in attaining to maturity? The answer, we think, is plain.

We assume then that our chief attention and study should be directed to, and our efforts based upon, the indigenous machinery, so to speak, of the people themselves. Native schools, or 'chatsalees,' as they are called, rather abound than otherwise in the country. In 1854, on a requisition from Government, and after due enquiry through the police, there were reported to be in the Cuttack District 2,074 schools, with 15,547 scholars; in the Pooree District 510 schools, with 5,542 scholars. For the Balasore District we may safely allow 500 schools, with 6,000 scholars. Or a total aggregate of 3,084 schools, with 27,089 boys for the whole. The total population of the three Districts, as ascertained about the same year, was in round numbers 2,550,000. These last figures are open to doubt. But we are inclined, for the purposes of this paper, to assume the population as 2,000,000. Assume that about 10 per cent of this number are lads who should, under circumstances far more favorable than exist, be at school. (We have read somewhere that nine per cent is the proportion allowed in England.) In this country an inevitable deduction of $\frac{1}{3}$ must be allowed, as representing the number of boys who cannot attend school on account of the extreme poverty of their parents, caste prejudices, and other reasons; and the proportion would be as follows:—

Boys who should be at school	200,000
Deduct boys who cannot be at school	65,000
Boys who are at school	27,000

If the above data and assumptions are correct, we have the not unsatisfactory result, to speak comparatively, that one fifth of the number of lads, who can, and should, be at school, are really being educated in some sort of way already. The absence of any encouragement to education, the general poverty of the masses, and other causes that might be cited, render these results encouraging. It should seem from the above figures, that the average attendance at each *chatsalee* is about $7\frac{1}{2}$, which will appear a very likely average, to those who have seen many of them. To promise that in the course of a few years, as the result of attentive and considerate supervision, and material resistance on the part of Government, and as the natural fruit of those measures, which Government have taken or may take for encouraging and fostering education in the country, this small average shall be much increased, as far as the

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existing schools are concerned, and many new *chatsalees* established by the people of their own motion, is to promise not more than may be assuredly predicted.

For our own part, we think it a most encouraging fact, that 27,000 Oryah lads are being educated in the indigenous schools. Additions to this number may we think be made, on the ground, that it is a well known practice in the country for Zemindars and wealthy families to have a schoolmaster attached to their establishments, and to educate their children privately at home. The results would thus be found still more favourable. But the fact, that there are 3085 schools, as many masters, and upwards of 27,000 boys to commence operations with, presents we think no insufficient basis to work on. In fact there are here a great many more schools than Government can directly aid, enough fully to occupy the time and attention of its existing agency, and more than enough to demand a much larger supply of improved school literature than is at present, or is likely to be for some time to come, available.

A great deal has been written and said about the rapid and encouraging advance of education in certain Districts of the N. W. P., and that not without sufficient reason. But when we come to compare notes, it will be found that in 1853 even after Mr. Reid's system had been in full and successful operation for three years, in those eight districts, among a male population of 4,272,000, he could only number 3469 schools with 36,884 scholars, including, it may be presumed, the Government Schools; while the numbers of schools and scholars before his system was introduced in 1850, were respectively 2,014 and 17,169 only. The results in Orissa, as reported in 1854, contrast very favorably indeed with those shewn above. In the one case, we have, just about the same time (1854,) in the Districts of Cuttack, Pooree and Balasore, among a male population of say one million souls, 3085 schools, with 27,000 scholars, representing the unaided and self-directed efforts of the people themselves. While in the eight Districts of the N. W. P., among a male population of 4,272,000, we have 3469 schools with 36,884 scholars, representing not only the efforts of the people themselves, but the direct results of a very practical and successful Government scheme, worked by a full staff, and supported by a liberal assignment on the part of Government.

A similar comparison with educational statistics in Bengal, might or might not be equally satisfactory; but we think there is no room for discouragement in Orissa. There is a sufficiently

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broad basis to work upon, a voluntary and self-sustained effort on the part of the people, sufficient to justify a larger share of that countenance and assistance from Government which has been extended to other parts of the country with what looks like an invidious partiality.

It is not to be denied that the education imparted in these 3,000 schools by these 3,000 indigenous school-masters, is, as in every other part of the country, of a most imperfect and unsatisfactory character, and does not extend in most cases beyond simple reading and writing, with the elementary rules of arithmetic. And the mode in which it is imparted is moreover not the best in the world. The schoolmasters, or Obodhans are also themselves imperfectly educated, according to European ideas. But the improvement of this national system of education, and this large body of indigenous schoolmasters, is just the grand object to which the efforts of Government should mainly be directed. These schools are the schools of the people, accessible to the means, and within the reach of most, having no prejudices or opposition to overcome—and these schoolmasters are the hereditary schoolmasters of the people, enjoying their respect and confidence, possessing, there is no doubt, a powerful though secret influence among them, which, evoked against any exclusive Government scheme of education, would for a long time present an effectual barrier against all improvement and success. In many cases, these men, are Brahmins, and, if we are not mistaken, in other Naicks, in some few perhaps Mahantees, all, more or less, wearing the sacred thread, the general referees in all matters of account among the villagers; not seldom they are the village doctors, possessing a voice in the arrangement of certain private domestic affairs; and generally speaking their position is such, that the opposition they could bring to bear, is not to be despised; while, on the other hand, if made friends to the cause of improved education, their influence would ensure it, if not absolute, yet comparative, success. The efforts of Government exerted through this medium, would not arouse the superstitious and ignorant prejudices of the people, while the natural effect of establishing independent Government schools over the country, and placing at their head masters with enviable salaries of ten and fifteen Rupees a month, would be to raise up a strong spirit of jealousy and consequent opposition. These well paid rivals would be regarded by the native schoolmasters as interlopers, wielding the ferule by right neither of caste nor of prescription and destined, if successful, to take the bread out of their mouths. Especially will this be so, where

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the new men are Bengalees or foreigners, as is most frequently the case. The former are regarded with a certain degree of disgust and dislike by all orthodox Oryahs. It will not avail to argue the right or wrong of this prejudice, or, because in our estimation foolish and unjustifiable, to act as if it did not exist. There is no doubt that it does exist, and will operate to the detriment, if not the total failure, of any scheme which shall be forced on the people in disregard of it.

Now the general standard of education among the people, is so very low, that it does not seem at present the best policy to raise that standard *per saltum* to the comparatively high point apparently aimed at. We require first to place within reach of the massess of the people, a moderate standard of education, comprising the ability to read and write correctly, and a knowledge of the elementary rules of Arithmetic. To these attainments, which will have a practical bearing on their material affairs, we should wish to add a few ideas of Geography and History, some correct principles of morality, and a store of general information; which acquirements will tend to the enlargement of their minds, the improvement of their habits, and the correction of their ignorant prejudices. It would be far preferable to raise the masses to this standard, than to elevate a few only to a much higher one; and we think that the existing agency, the indigenous schools and schoolmasters, may be rendered quite adequate to this end. If these ideas be correct, it is manifestly impolitic to adopt any plan of general education, which shall not acknowledge the native Chatsalees and Obodhans, as its basis, and their improvement and encouragement as its immediate object, with a trust, thus to reach the great aggregate of the population through a medium acknowledged and approved of by themselves, without arousing their superstitious fears, and prejudices.

We now proceed to apply the two principles above noted, to the outline of a plan of general education. We have said that example and assistance are what is required from Government, and that mainly in the due and judicious application of these principles, lies, in our opinion, the secret of success. It is not meant to be said that these principles are new ones, for they are at present acted on by Government. Model and other schools on approved plans, and far above comparison with any thing of the kind that is indigenous, have been established in the country, and thus the example as to the mode of imparting an improved education, its elements and results, besides the

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incentive which the mere force of example supplies, have not been wanting. But how diffuse and weak have these efforts been! How perfectly impotent as regards the masses! And so with assistance. This has not been withheld; but in being for the most part restricted to the grant-in-aid system, has been insufficiently and unsuitably applied. In sketching the outlines of our scheme, we shall not recommend it because it possesses any abstract excellence, which in our judgment over-balances all others, because, for instance, it is, perhaps, best calculated to call forth and encourage independent action on the part of the people themselves—in itself a most important matter—or because it is the least expensive, or likely to be the most popular and acceptable. Under the circumstances, it is not the absolute perfection as a whole, or the abstract excellence of the plan, which should give it the preference, but its fitness and feasibility, qualities which will ensure the attainment of our end, and which should ensure it our support, although we may be conscious that it is not perfect, and is open to the objections of those, who would prefer theoretical to practical excellence. We cannot have a perfect scheme; one which shall at the same time be the most sound, comprehensive, and enlightened in principle, and the most practical and practicable.

In the first place then, the root of all improvement, and in our opinion the first step, lies in the creation of an improved and sufficient school literature in the Vernacular. In Bengal, the School Book Society, the Vernacular Translation Society and private enterprize, supply a large and abundant variety of school books in Bengali, good and cheap; so that there is no necessity to undertake there, what in Orissa Government must do, directly or indirectly, in this matter. We have, it may be said, a sufficient number and variety of books in Oryah to begin with, and no considerable immediate outlay seems necessary. The copyright of the following books, belongs to Government.

1. An Elementary Grammar.
2. Niti Kotha, or fables.
3. Hitopodesh.
4. Nitibodh.
5. Geography.
6. Arithmetic.
7. Euclid.
8. Outlines of Geography.

Besides these, there are, a History of Orissa, Outlines of Natural Philosophy, a smaller Arithmetic and Grammar, and other school

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books which, as having been published at the expense of Government, or the School Book Society, or under their patronage, would be available without objection. Put together, the whole would present a sufficiently numerous series to select from in commencing operations. These books might be greatly improved and curtailed; some would indeed require revision. But we have shewn that there is no want of rough material, and therefore no necessity for a large outlay in the initial preparation of a school literature. All that is required is that Government, or the School Book Society, should undertake the supplying of the books, and furnish the first out-lay of printing and publication, to be afterwards recovered by the sale of the books.

In passing, it may be remarked, that it has been the practice heretofore to print small editions of a work; thus necessarily, in order to avoid loss, having to fix the selling price at a much higher figure, than would otherwise be requisite. It seems also to be something like a practice to throw aside a work which has been approved, purchased and printed by Government, as soon as a first small edition has been exhausted and to adopt another work, because, it is supposed by a different judge to approach nearer to the standard of a school book, than its predecessor. This can hardly be considered judicious under the circumstances. It is quite true, that the Vernacular Oryah, sometime ago perfectly uncultivated, possessing neither grammar nor dictionary, has been of late undergoing a change, and we may say an improvement. Books, therefore, published ten or fifteen years ago, are now perhaps, considered to be inaccurate, unidiomatic, and susceptible of, and requiring, revision. But this is no sufficient reason why they should be totally abandoned; nor does it justify the delay and fresh outlay required for the publication of an entirely new series. If it be considered that there is a probability that an edition of 5000 copies of any school book, will be absorbed in, say, five years, it would be undoubtedly better to print one edition of that number, which would allow of a small selling rate per copy, rather than to have within the same period small editions of two or three works of the kind, the first cost of which would be more than double that of the larger one, and in consequence require a higher selling rate, and so far interfere with their circulation and usefulness. This is a point that has been disregarded heretofore, and it is not possible to say what share the disregard may have had in rendering the efforts of Government to improve the people's education, futile. If every Deputy Inspector, and Inspector is at liberty to

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exercise and act on his own discretion, and undo what his predecessor has done in this respect, there is an end to the matter : our school literature will always be in a transition, but not necessarily, in an improving state. However, we require the introduction of good and suitable books into the indigenous schools ; and this cannot be done, unless the selling prices of the books, can be brought within the very limited means of the people. This is feasible by having large editions of suitable works. By way of illustration we give the following statement.

A small edition of Bishnoo Sharma's Hitopodesh, 12mo. was printed by Government at the Cuttack Press. It cost Rs 367 ; so that in order to avoid loss, the selling price had to be fixed at 13 annas per copy ; a price which, as far as the indigenous schools were concerned, was quite prohibitory. Now suppose, 5000 copies had been printed, the cost of this larger edition would not have been much more than 1000Rs and the selling rate could then have been fixed at a trifle over 3 annas per copy. The work would have been sold rapidly.

Let us then have large editions of a judiciously selected variety of school books, printed in two or more separate parts, so as to make each successive demand on the slender pockets of the parents and friends of the school boys for the purchase of school books, as light as may be. The books will sell in due time, if only adopted by the Education Department. The main point, as we reiterate, is to bring out the books in such a manner, as to ensure their being within the reach and means of the great mass of humble village people, else they must fail in half their mission. The pride of both printer and publisher—we have known it to stand in the way—must be held in abeyance ; and they must consent to produce books, on rough and coarse material, if necessary, without expensive bindings and cloth cover, so that the primary object of cheapness may be attained.

In this respect, then, is the aid of Government called for ; and without it, no school can flourish, and no general scheme, having for its object the education of the masses, can in any degree succeed. A great deal more might be said about school books, more especially as regards their character, but want of space forbids our enlarging on the subject. One point may be merely noticed, and that is, that while the Bible, the perfect code of duty and morality, is excluded from all native schools, we give them no substitute. This surely ought to be done. An unobjectionable substitute might be produced, and along with Geographies and Grammars should be placed in the hands of the rising native generation.

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We now proceed to sketch the outlines of a plan of education.

I. Establish at each of the head quarters of the three Districts of this Division, a Vernacular School, with the following staff and allowances :—

Head Pundit	25
2nd Ditto	10
English Abecedarian master	20
Chowkeydar	4
Contingences	5
Prize allowance	5
5 Scholarships at 5 each	25
5 Ditto ... ... at 3 ditto	15
Total Rupees 109 per month.	

Government have been pleased for many years past to maintain, at no trifling cost, what are called Anglo-Vernacular Zillah Schools. The 'Vernacular' may be omitted from the designation, for English is what is actually taught, the maintenance of a Pundit, or Vernacular teacher, being but a disguise, and a very poor one, and the post all but a sinecure. We are not of those who either condemn this class of Schools as totally useless, or uphold them as a powerful means for the improvement and education of the people. They have been a long time in existence, and we think, have failed to produce results in any degree commensurate with the large outlay of public money that has been made on them. They have given us a class of less than half educated writers and ministerial officers, and must notwithstanding their short comings, have diffused a mental leaven of improvement and intelligence among the restricted sections of the community that have availed themselves of their advantages. But they have not influenced the masses, and their stanchest supporters must admit, that they have yielded no results, which can be regarded equivalent for the total neglect of the Vernacular education of the millions, who meantime have been left in the outer darkness of their ignorance and superstition. We are by no means advocates for the abandonment of these schools. We are grateful for the modicum of good they have achieved, and anticipate an enlargement of their sphere of usefulness; but we would make them subordinate though important parts, of the scheme of which they have hitherto constituted almost the sum total. Our idea is that the state conscience has accepted the maintenance of these zillah schools as a salve for

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the neglect of those more general and comprehensive, and therefore costly, measures which are imperatively demanded for the lower and middle classes of its Indian subjects. There can be no objection to the Government educating the aristocracy of the country, whom it has itself made; the upper ten thousand, who have benefitted so much under the fostering care of the State. Let these now, however, pay for their own education, as they well can do, and handsomely too. Government has done its duty amply towards them. It has lavished its favors on them; it has maintained High Schools and Colleges for their general education, and has now founded Universities to afford the means of attaining, and to confer the high distinctions accorded to, riper Scholarship. It has done enough in all fairness, and may now, having raised what we have called the upper ten thousand into a position from which their means and their self-interest will prevent their receding, it may safely withdraw by degrees, in a large measure, from the support of so exclusive a system, and devote its attention and educational funds to the millions. These are to be reached through the Vernacular only. For with all deference to the high authorities who have inveighed against education by means of the Vernacular, we consider it a *sine qua non*. If ever the millions of India are to be taught self-government; if ever they are to be imbued with the moral and social principles of an enlightened civilization; and what is all important in a religious point of view, if ever they are to be brought to acknowledge the folly and wickedness of idolatry, and to accept the doctrines and duties of the Christian faith, it must surely be through the medium of their own mother tongue. And these are among the ends of education, and may not be sacrificed, without a failure in duty, to the interested outcry for a superficial knowledge of the English tongue, raised by those who have an eye to the share of the loaves and fishes which such a knowledge is likely to secure.

With these views we suggest the establishment of Vernacular Schools of a superior class at each of the centres of population. It comports as much with the duty of Government to give the inhabitants of the towns the chances and advantages of a proper education as those of the rural villages. In these centres are accumulated as many inhabitants as we should find in any eighty or a hundred villages, and they are as badly off for good schools as the latter, while the temptations and idleness of a town life are more injurious and mischievous to town children, than any thing that is to be found in the quiet and more

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simple and, in respect to daily employment, more active life of a village community. On the other hand, people living in the towns have a much better perception of the advantages of education for their children, and are inclined more readily to avail themselves of any opportunities that may be placed within their reach. At the same time as a measure in consonance with the views expressed above, we would remodel the so called Anglo-Vernacular Schools, now existing at the head quarters of each district, double or treble the present fees, and re-cast the constitution of these institutions, so that the following results may be secured:—the removal of the temptation, which is now held out by low fees and a low standard, to obtain the merest smattering of English to the total neglect of education of any other kind or in any other way; the reduction of the excessive cost to Government of a boy's English education so as to set free the public funds, which by rights should be expended on a more public and general scheme, and are required for that purpose; the elevation of the standard of education, so that the English instruction given may be somewhat less crude and contemptible, than it now must in most cases be confessed to be.

We cannot, however, sympathize with the outcry for Normal Schools, at least to such an extent as to persuade ourselves that all endeavour to educate and improve the education of the masses, is as so much strength wasted, unless we have specially trained teachers to place over the schools established. Normal School teachers are very well in their way, and much to be desired. But surely it is not meant to be said, that we should have normal schools teachers for our village Chatsalees? Unless the Government find the pay, such teachers will never be at the head of village schools; so that their sphere of usefulness, is limited to superior schools, either Government or private. The want of normal schools, and normal school teachers, is then no sufficient reason—none at all in fact—why no efforts should be made with such agency as is available, be it indifferent, or bad even; or why the full tide of Government aid and endeavour should be checked. 'The people are,' in scripture phrase, 'perishing for lack of knowledge,' while Government propose to rear scientifically trained teachers, by a process necessarily so slow that years must elapse before they will be ready. The growing desire for education will create the demand for improved teachers, just as it has done in other countries. In other words, the latter will follow the former, as its consequence and result, and not precede it as its cause. The

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contrary way of thinking, however, is in keeping with the straining after perfection, and the lofty standard that has marked the education policy of the Government from the beginning. They despise the day of small things, contemn the humble efforts of an impoverished and belated people, and abuse, as incorrigible blockheads and impracticable obstructives, the hereditary schoolmasters of the people, who nevertheless hold the position, and exercise the influence, which are just the position and influence that Government seek to fill and direct. There are numbers of schools and schoolmasters; but because they are imperfect, they are tabooed and neglected, and Government set themselves to constitute an entirely new agency, about which no one would quarrel were not the pressing interests of the people, and their strong prejudices, points for consideration in the question.

We have then no objection to English schools and Normal schools. But our advice is that the steed be not allowed to starve, while the grass is growing. Let not these otherwise desirable institutions stint the funds and energies that should be devoted to the broader, the more imperative demands of popular education and advancement, much less absorb them; and we should be specially careful how the spurious outcry for English—not English literature and science, nor English ethics—but the mechanical power to read and write that language, be it never so imperfectly and ungrammatically, is gratified, at the sacrifice of the more important interests that the State is supposed to have at heart, in a scheme of public education.

The sites of the Vernacular Schools we have proposed for the chief town in each Zillah, should be judiciously selected, and the masters should be natives of the province, the best that can be had. A fee of 4 annas a head per month, and in the lowest class or classes 2 annas, might be safely levied. The curriculum of studies must, for this superior class of schools, be higher than can just at present be furnished from the existing school-book series; but this is a want which it may not be difficult in a short time to supply, by the translation of standard works, either from the English or Bengali. We have proposed an English master to teach the rudiments of that language to the highest class or classes, but always in subordination to the more immediate objects of the institutions. We have provided for thirty scholarships in the three Zillah schools, which should be invariably filled from the pergunnah schools, to which we shall come presently. The scholarship boys might be allowed a preferential claim to the post of

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pergunnah schoolmaster. More than this it is at present impossible to accomplish. We can no more provide all the indigenous rural schools with masters educated in our more expensive institutions, a complete education in which almost implies means and a position in the social grade above the average, than we can ever supply normal school teachers. A rural schoolmaster earns, in one way or another, from three to four rupees a month; and he is not underpaid, if the poverty-stricken condition of the people be taken into consideration. But boys whom we have passed through our pergunnah schools, and then taught in our zillah schools, cannot be expected to content themselves with so meager a livelihood as that afforded in the position of a village schoolmaster. In process of time, however, and without any violent displacement or revolution, we may be able to supply many rural schools with masters educated in pergunnah schools; the sons and natural successors of the old Obodhans, or Gooroomohashoys as they are called in Bengal. When this step is gained, half the battle of popular education will have been fought out, and the improvement and progress of the education of the rural population would be measured by, and depend upon, the improvement and progress of the higher Government institutions, instead of the two, as now, being dissevered links of the same chain, or disjointed members of the same body educational, without the smallest sympathy, the one with the other.

The total expense of the three zillah schools to be established and maintained at the cost of Government, would be 327 Rupees per month, or 3924 Rupees per annum; while the fees, which might most properly be made available as a set off against this expenditure, will, it may be reasonably calculated, amount to from one fourth to one third of the same.

II. Establish at the most centrically situated, or most populous village in each pergunnah, a vernacular school, with the following scale of establishment and allowances:—

Head Pundit...	10	0	0
Boy, as an attendant.	1	8	0
Contingences and prizes	3	8	0
Three scholarships at 2-8	7	8	0
Three ditto at 2	6	0	0
Total Rupees	28	8	0

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where the number of boys attending a pergunnah school exceeded 30, we would add an

Assistant Pundit 6 0 0

The scholarships in these pergunnah schools should be awarded to the best boys of the aided rural schools, or, if on consideration it seemed advisable, might be set apart exclusively for the sons of aided rural schoolmasters. These pergunnah schools would require the closest attention and supervision; and for these purposes, a system of circles of visitation would be required, which should be made to embrace aided and inspected rural schools. The fee in pergunnah schools, might be fixed at one anna six pie, or one anna only per month. Simplicity and inexpensiveness should be aimed at in the conduct of these schools. The supply of books, while abundant, should consist of cheap works; and every lad be required, or induced to possess copies. The pundit might be custodian, and be allowed a commission on the monthly sales. We would endeavour to abolish the practice of scribbling or ciphering on the floor, which, though a method practical enough, is calculated to admit imperfections into the instruction so communicated, and is objectionable in other respects also. An abundance of cheap slates and black boards would be xcellent substitutes.

We are aware that Vernacular Schools were established at numerous places in the Lower Provinces some years ago, and were at last abandoned as entire failures. But this was the result of an almost entire want of proper inspection. The pundits were allowed to do just as they liked, and like all Asiatics, who have a singular lack of any thing like a sense of duty, lapsed, in the absence of close and careful supervision, into the uttermost indifference and idleness, as far as their immediate charges were concerned. Fictitious returns saved them an immense deal of trouble, and shielded them from censure, and when any special effort was necessary, a few pice judiciously distributed purchased the temporary attendance of a decent number of boys. The system of course broke down to the surprise of no one. But now that there is a special bureau for the direction and management of educational affairs, with Inpectors, and Sub-Inspectors, native schools will be, or ought to be, efficiently supervised, and the pundits no longer left to their own devices and proclivities. Frequent visitations and strict superintendence will keep them to their duties; while rewards and advancement will provide some stimulus for their pupils.

It is impossible here to enter more minutely into detail; and

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we shall content ourselves with affording an approximation to the cost of Pergunnah Schools for three districts of the province. Some of the pergunnahs of the division, are so small in extent, that it would not be necessary to have a school in each. Say that schools were established in 100 pergunnahs. The total cost would be at 28-8 for each school, Rupees 2,850 per month, or per annum 34,200. The fees levied in these Schools would not be of much avail as a set off against this expenditure. Their aggregate would, however, afford an ample fund for additional pundits, where such were required. The above would be the maximum cost to Government; but the punditships of these schools would advantageously be divided into three classes, on ten, eight, and six Rupees a month; so that the sum total is susceptible of some diminution on this account, and might on the average be stated at 2,670 per mensem, or 32,040 per annum.

III. Let all the rural schools or *chatsalees*, as far as can be done without excessive inconvenience, be visited, and a certain number within the limits of each pergunnah, say as many as six in some, and three in others, be selected by the Deputy Inspector or Inspector. The points for consideration in the selection, should be locality in a populous village or neighbourhood; the existence of a permanent school house or place which would afford accommodation as such; the duration of the school; the number of pupils; the character of the Obodhan or teacher; his willingness to submit to visits from the Deputy Inspector, and to use books that would be supplied him for his school. There are other minor points, which do not need specification. Let the Obodhans or teachers of all such selected schools be paid by Government monthly one or one rupee and a half, and in special cases, two rupees, as a grant-in-aid.

This may appear a trivial measure; but, if we are not much mistaken, it would be regarded otherwise by those mainly interested. A man who earns from two to four Rupees per month, as the little all on which he must subsist, would not ordinarily despise a clear and certain addition of one, or one rupee and a half, to his slender pittance. Living well, as things go in the Mofussil, on two annas a day, this addition would find him food for a week; and however insignificant it may sound or appear, it would have its weight with the recipients. We may calculate that about 500 rural schools would be aided in this inexpensive way. The aid so given to so many schools might very properly be regarded in the light of a retaining fee, in return for which we should, in the generality of cases, be enabled to direct the

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influence of the old Obodhans, to lay their overt antagonism, to instil a few ideas of progress into their heads, to place some books in their hands, and through them in the hands of their pupils, to improve the manner and material of their instructions, to supply a stimulus to their rude pupils, to remove some prejudices, and generally to encourage, foster and strengthen any desire that might exist for knowledge and information. And when the old race of Obodhans have retired from their spheres of labor, we should be in the best position to replace them gradually, in many cases with teachers educated in our own schools, who though not deep in the mysteries of scientific teaching, would still be great improvements on their predecessors, and continue to improve with the lapse of time. If we assume then that 500 indigenous rural schools be aided in the manner above indicated, the monthly expense will be say 700, or per annum Rupees 8,400.

We would not recommend any peremptory interference with the Obodhans, and we would require no periodical returns. Visitation by Officials of the Department would of course be made a necessary condition of the grant-in-aid; and such visitation frequently repeated, in a friendly and conciliatory manner, would secure all that is required. A visitor would take down the statistics and condition of the schools, and should every month submit a tabulated statement exhibiting the results of his observation. Here we may also add that if visitors and Deputy Inspectors have tact, and display a friendly spirit and manner, it will not be a matter of much difficulty, while it should and must be an aim of duty, to visit and improve rural schools other than those aided by Government. Of course the same amount or control and influence over them, as may be exercised over aided schools, cannot be expected. But there appears no reasonable obstacle to the attaining a degree of influenec, which will be for good only. Example is catching. The spirit of competition and improvement, will be abroad in the land. We are indeed afraid to suggest a *quid pro quo* with regard to these non-aided schools, in return for which our visitation and inspection would be so much better tolerated; for the little bill that we shall have to present will, we fear, be considered sufficiently formidable already.

IV. In order to complete the scheme, it would be necessary that there should be visitors of circles; say three in the Cuttack, and two in each of the other Districts, making seven circle visitors, a properly qualified Native Oryah Deputy Inspector for each

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Zillah, and an Inspector of Schools, with head-quarters in the District, and not at Calcutta. The Visitors and Deputy Inspectors should, before every thing else, be natives of the province, and not Bengalees; and the first qualification of the Inspector should be a thorough practical acquaintance with the Vernacular of the District. It is a solemn farce to give us a local head, who besides having no local habitation, cannot personally communicate with the teachers of his schools. The educational machine, like every other machine, requires constant practical supervision by a responsible and capable head; not a supervision which contents itself with reports and statements only. All efforts for the advancement of popular education are not unlikely to fail as inevitably as those that have been made heretofore, if every thing is left to the Pundits and visitors, or even Deputy Inspectors, or what is tantamount to the same thing, if we have an Inspector who knows not his workmen and his material, and his ground too, and is unable freely and unhesitatingly to communicate his ideas, wishes and advice directly to those whom it is his duty most to guide and influence. In every case, as far as practicable, visitors and Deputy Inspectors should be natives of the province. We really do not want Bengalee scholars, who are always hankering after appointments in their own province, and who find no sympathy or companionship in the Mofussil, where their duty lies, and who rouse not a little dislike and opposition among a population peculiarly prejudiced, by constant references to and comparisons with things as they are in the more favored land of Gaur. The entire establishment of visitors and Deputy Inspectors, would not cost more than 550 rupees a month—namely at an average of thirty rupees a month for visitors, and eighty rupees for Deputy Inspectors, with small, though sufficient, travelling allowances.

We have thus sketched in outline a somewhat comprehensive scheme, more so at least than any that has yet been tried and one that embraces a good proportion of the existing rural schools of the people. There is, however, for the present a deficiency or disproportionateness in it, in the provision made for aiding the indigenous schools. These aided schools form the links uniting the people's efforts with those made by Government on their behalf, and the better aided and more numerous they can be made, the closer and more beneficial will be the connection. Any extension of the scheme should therefore be in this direction. We thus admit that the provision we have made for the aiding of rural schools is at present rather insufficient in proportion

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to the comparative importance of that object; but that provision is susceptible of gradual and great extension, which can be effected at any time, when justified by success, or made possible by the growth of funds, which do not now exist. Next in the grade of importance are the Pergunnah Schools. They will afford living and practical example to village schools, schoolmasters and people. Ere long they will furnish better Obodhans than now exist; they will hold out a little career to many village school boys, who otherwise would have to content themselves with the imperfect and extremely limited instruction that their present masters are capable of affording, or to neglect even that from want of a stimulus, an object of ambition. Besides these and other advantages, these Pergunnah Schools would directly educate a proportion of the school-going population, namely, from two to three thousand boys. And finally of great importance are the proposed zillah schools. It does not speak well for the Education Department, that in the great centres of population, in each of which from thirty to forty thousand native inhabitants are to be found, possessing a greater desire for the education of their rising progeny, and on the whole undoubtedly much better able to pay for the advantage, there exist no purely Vernacular (Oryah) schools above the grade of ordinary *chatsalees* or village schools. Our plan supplies this deficiency, and if judiciously carried out, would, we have every reason to believe, prove most satisfactory.

We shall content ourselves with two more paragraphs. First as to the aggregate expenditure required by such a scheme in its completeness:—

3	Zillah Schools	per mensem	327	per annum	3,924
100	Pergunnah do.	do.	2,850	do.	34,200
500	Aided village do.	do.	700	do.	8,400
7	Circle visitors	do.	245	do.	2,940
3	Zillah Inspectors	do.	270	do.	3,240
	Books gratis	do.	50	do.	600
	Total Rupees	do.	4,442	do.	53,304

By fees, and a reduction of expenditure in the present Anglo-Vernacular Zillah Schools, the total cost might be reduced, in round numbers, to half a lakh of rupees. It would of course be confined to that tract of the country, which is called the Mogulbundee, or settled part, which, if we are to accept the census of 1854, the latest that has been made, contains a population of

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2,550,000. This, however is, as we have already remarked, probably an exaggerated estimate, which might, with approximate accuracy, be converted into 2,000,000. The expenditure of the half lakh would therefore be at the rate of about $4\frac{3}{4}$ pie a head per annum.

In the second place we have to indicate the source from which the public funds may hereafter be greatly relieved of the burden of this expediture. The Mogulbundee of Orissa, is a temporarily settled tract, the current settlement expiring in 1867. The Mofussil Jumma, or gross land Revenue, may be assumed as twenty lakhs of Rupees. Judging from the results of the renewal of settlements of isolated estates within the Mogulbundee, or adjacent to it, which, having had shorter terms to run than the general settlements of the Province, have been since made afresh, and judging also from the great enhancement that has of late years taken place in the value of land and its produce, it is not too much to predict, indeed it seems well within probability that the resettlement of the province would, in 1867, yield a land revenue of from twenty-two to twenty-four lakhs of Rupees. Is there any resonable objection why a slight cess should not be added to this jumma, for educational purposes? Two per cent would yield from 44 to 48,000 Rupees; and this would go a long way towards the aggregate outlay on education. Other sources of Revenue, annually on the increase, may be supposed for the nonce to supply the balance. This principle of levying on, or adding to, the jumma of the land at settlement, such a cess as the above, is one that has been acknowledged, if not acted on, by Government, and to our apprehension is most equitable and just in the abstract, and would effect so light an enhancement of the rent-payers' burdens, as to be hardly appreciable. In the case of this Province, the Government are fettered by no unwary promises as in permanently settled estates, and ere they promulgate any, we think it would be worth the while to take the matter into consideration. Half a lakh of Rupees thus contributed by the people themselves, with any further allowance from Imperial funds, which it might please Government to make, would, or should, do a great deal for the cause of popular education in this long neglected, but promising province of British India.

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ART. IV.—1. *History of the Military Transactions of the British Nation in Indostan from the year* 1745. By Robert Orme, F. A. S. Madras: re-printed by Pharoah & Co.

2.—*Public Records.*

WE wonder how many people have read through Orme's Hindostan. Macaulay, indeed, has pronounced that old world author to be inferior to no English historian in style and power of painting; but then he is oppressive from the load of detail. His work is not a history properly so called, such as Macaulay himself would have written, but a graphic report by 'our own correspondent.' A hundred years hence, people will prefer to read the annals of the Crimean War summed up into a single chapter by some future Gibbon, rather than labour through Dr. Russell's picturesque but long-winded volumes. In the same way the present generation will probably prefer reading a concise narrative of the course of events in early Madras history, to wading through the mass of facts recorded by old Orme.

But there is another circumstance which interferes with the popularity of Orme's work. The period to which it refers is extremely limited, extending over sixteen years only, namely, from the year preceding the French occupation of Madras in 1746 down to the triumphant capture of Pondicherry in 1761. Of the previous history of India his knowledge was very slight and untrustworthy; and the later history he never atempted. Then, again, the bulk of his work is chiefly devoted to the progress of affairs in the Madras Presidency. He did indeed spend some years of his early life in Calcutta, and thus has incorporated in his annals a narrative of events in Bengal both before and after the Black Hole tragedy in 1756. But throughout the period to which he restricted himself, Madras stood prominently forward in British India; whilst during a large portion of that period he was himself a member of the Council at Fort St. George. In Madras, therefore, his very minuteness of detail has served to perpetuate his memory and concentrate his fame. His work is a treasury of authentic stories of the early deeds of the Madras Army, and thus has been for generations the delight of every

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camp and cantonment throughout the Presidency, which could boast the possession of volumes which up to the moment of the present republication have been both costly and rare. With Orme in hand any Madras resident can point out the spot where Maffuze Khan was beaten by the French at St. Thomé, and where Count Lally planted the guns which were to batter down the walls of Fort St. George. Moreover the topographical knowledge of Orme extended to almost every part of Southern India, which was at that time known to the European. Mysore was indeed a *terra incognita*; but with all the famous localities between the eastern Ghats and the sea, he seems to have been thoroughly familiar. The old camp at Trichinopoly, the sacred island of Seringham, the broken ramparts at Arcot, the great pagoda at Conjeveram, the precipitous rock at Ginjee, the blood-stained fort at Vellore, and even the remains of Dutch glory at Pulicat and Sadras, are all invested with the liveliest interest by the graphic pen of the old antiquarian.

Having said thus much for Orme we dismiss him without further ceremony. Recent researches in the Madras records have thrown a new light upon the early progress of British settlements in this country; and accordingly by their aid we purpose to sketch the early history of Madras from the foundation of Fort St. George down to the period when the annals of the Presidency begin to connect themselves with those of India, a date which coincides with the close of the period treated by our historian.

Early in the seventeenth century, whilst James I was studying Hebrew at Hampton Court, the English and Dutch were trying to establish fortified factories on the Coast of Coromandel, in order to exchange the cloths of that locality for the pepper and spices of Java and the Moluccas. The Dutch came first and erected a great square massive Fort at Pulicat, about 30 miles to the north of the present site of Madras, and another at Sadras, about 30 miles to the south of that site. At Pulicat scarcely a vestige is to be found of the Dutch of the olden time, beyond a quaint burying ground, a street lined with trees, a few Dutch houses, and a few heavy masses of half buried brick work, which serve to show where the Fort once stood. But at Sadras the destruction has been but partial, and the hand of time has dealt lightly with the ruins. The watch towers and stair cases, the Governor's house and the Officers quarters, the barracks, the cells for prisoners, the magazines, the store rooms, the ramparts,—all are still there, showing the heavy brick work, and neatness and

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primness of style, for which the Dutch were so celebrated.* At this early epoch the English tried to settle at Pulicat along

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* We know of no place in India so redolent of old Dutch life in India, as Sadras. There the pilgrim may wander, not only through the old Fort; but through the Governor's official residence, now a traveller's bungalow, and above all, through the ruins of Myhn Heer's magnificent garden house; and at last he will almost fancy that the great merchant princes of the seventeenth century have but just vanished away, with their huge pipes, their fiery schnaps, and their stately vrows. The following extracts from some notes taken on the spot about a year ago by the writer of the present article may be not without interest.

"The Fort at Sadras must have been a very imposing place a century and a half ago; and enough of the fortifications are still standing, to show the great strength of the masonry, as well as the arrangement and plan of the place. The visitor can still walk along the elevated terraces, and examine the magazines, the store rooms, the treasury, the barracks, and the terrible dungeons. He may still enter the residence of the Commandant, and even ascend to the watch towers and guard-rooms. But there, in a spot once an arena of constant business and bustle, all is silent and desolate. The purple convolvulus luxuriates amongst the ruins, and nothing is heard but the solemn roar of the waves, which dash upon the sandy beach unchanging and unchangeable.

"The Fort was originally a great square, or rather a parallelogram, rising up to a considerable height on a sandy eminence within three hundred yards of the sea. It seems to have been about six hundred feet long, and four hundred feet broad. All round the Fort there was a double line of wall, or rather two walls, with the space between them filled up with earth so as to form a magnificent terrace walk; and each corner of this large fortified parallelogram was formed by a strong bastion. Within the Fort on the land side, was the line of barracks protected by the massive walls. On the sea side were the watch towers, and quarters of the Officers of the garrison. On either side is a well constructed bomb proof magazine. In the south-west corner is the old burial ground, with its massive tombstones of sculptured granite, where many a troubled and aching bosom found a resting place at last. The entrance to the Fort is composed of a beautiful and strongly built archway, surmounted by a tower; and near it is a large well, sufficient to have furnished a continuous and plentiful supply of water to the whole garrison. Such was the Fort of Sadras in the olden time, when the Dutch merchants lorded it over their little territories, and treated all other Europeans with the utmost suspicion and disdain. Rising abruptly from the sea, it must have been seen from distant ships miles and miles away. At the same time the unhealthiness arising from the height of the walls must have been greatly tempered by the glorious sea breeze, which rushed along the terraces and through the watch towers and guard rooms, bringing to the weary denizens of the Fort all the freshness and coolness of the radiant waves. Once more we may fancy we hear the gun announcing the arrival of another ship in the offing, and see in our mind's eye the stolid Dutchmen, cut off from their native land, eagerly drinking in the news of the landing of their own William of Orange on the shores of Great Britain, or listening anxiously to the story of his mighty and desperate struggle

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with the Dutch, but the arrangement between such commercial rivals was altogether impracticable. They then tried a neighbouring locality, but it did not answer. At last in 1639, the

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against the overwhelming power of Louis. Once more we may see a trembling harkāra hurrying in with the terrible news that the Mahrattas are once again plundering and ravaging the Carnatic; whilst the sudden clanging of the midnight alarm bell is summoning all hands to get in the goods from the town, to serve out ammunition, or to man the walls. Once more we may see all the agitation and bustle of that quaint old Fort, from the stately Governor of the settlement, to the young boy in the counting house, or the emaciated prisoner in the hot and feverish dungeon; whilst the watchmen of the night are straining their eyes from every tower to catch the first glimpse of those portentous fires which generally heralded the approach of that terrible and savage foe. But all is silent now. Eighty years have passed away since that strange old settlement fell into British hands. That too was a stirring time. The Tigers of Mysore were desolating the Carnatic up to the very walls of Fort St. George, when a prompt old English General mined the Fort in all directions lest it should fall into the hands of Hyder, and left little beyond the cracked and shattered walls in the state they are standing now.

"One peculiarity of the old Dutch Fort at Sadras is so illustrative of the national character, that it must not be passed unnoticed. In all directions we see manifestations of that peculiar squareness, neatness, primness of design, which gives to the whole group of buildings and surrounding walls almost the appearance of a neat model of something still larger and grander. Everything seems to have been ordered, regulated, and cut by rule and square, from the staircases and terraces to the watchtowers and guard-rooms. But this same love of order and rule rendered the Dutch remorseless and inexorable towards prisoners and deserters. The wretched victims were consigned to horrible dungeons, rarely to quit them except to enter their graves. Delinquents and defaulters were treated with unsparing severity amounting almost to ferocity; and we may remark that, next to the Inquisition, few administrations were more relentless and cruel than those of the Dutch Governors in India and Batavia.

"A hundred yards inland from the Fort stands what was once the town house or official residence of the Dutch Governor. It consists of one ample hall, with rooms on either side, and a long spacious verandah in front. This building is also interesting to the visitor, inasmuch as at present it forms the traveller's bungalow; and we may add, for the information of tourists, that free accommodation may be obtained at all times, only the traveller must take his own provisions and mattresses. The most curious feature connected with this building is the quaint old garden. An English garden in India disappears entirely in a very few years, if no attention is paid to the cultivation; but though nearly a century has passed away since this Dutch garden was left to itself, the ruins still remain. Every fancifully cut bed, and straight prim path, was lined with brick covered with white chunam; and to this day the lines still remain to indicate the beds and pathways of olden time. There too are the solid seats, the massive walls, the neat tank with little channels for watering the beds, and the luxuriant remains of trees and flowers which still struggle against the thick overgrowth of prickly pear.

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year before the sitting of the Long Parliament, a Mr. Day proceeded to the Portuguese settlement at St. Thomé, where he found unexpected encouragement from both the Portuguese authorities and the native powers. A little strip of land along the shore, about five miles long and one mile inland, was obtained from the Rajah of Chandragheri on payment of an annual rent of 1200 pagodas ;* and an oblong fort facing the sea was constructed without delay, and named after the patron Saint of England,—Fort St. George.

The state of the country round about the little Fort would be a marvel to the present generation. The Mussulmans had not as yet pressed so far to the south, whilst even the Mussulman kings of the Dekhan (the countries lying between the Nerbudda and the Kristna) were as yet independent of the Great Mogul. The Rajah of Chandragheri was a Hindoo,—the representative of the once famous Native sovereignty of Bijianagŭr, the last of the great Hindoo kingdoms, which had been overturned about eighty years previously by a confederacy of the Mussulman

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"But this Town House and grave looking garden are dwarfed into insignificance by the side of the magnificent Garden House, which once rose in stately grandeur nearly half a mile inland, and where the Dutchmen of old displayed their taste for flowers and canals to their heart's content. There was once the Dutchman's beau ideal of luxury and retired dignity. A quaint but splendid edifice, strong as a castle, but rendered light and elegant by its graceful towers, elevated terraces, and curious arches. The gardens spreading over four acres were all cut up into straight walks, mathematical beds, and endless water channels. Trees and flowers all were luxuriant but trim ; and the deep waters of the lake-like tanks, were as solemn and imperturbable as a Dutch canal. In a word, all the wonders of a residence at the Hague were reproduced in that sandy plain. The indications of the past are still so fresh, that the imagination easily calls up a picture of the days that have been. The walks once more alive with young Dutch traders, solemn as judges ; and with fair young vrows, stately, prim and blooming as the precisely cut beds of flowers. From yonder tower a starched lady in ruffles may have been looking down upon the yellow lotus flowers in that deep lake ; or watching the Governor and Council sitting in that small embowered island, with the eternal schnaps and coffee and stupendous pipe. All is intensely Dutch, and yet here and there glides a mild Hindoo, or a jewelled and bangled Ayah. But all is a dream of the past. Silence and desolation are the only denizens now ; and nature alone luxuriates amongst the ruins."

* The original grant on gold leaf was preserved for more than a century, but appears to have been lost during the French occupation of the Fort, 1746-48.

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kings of the Dekhan.* Seven years after the foundation of Fort St. George, the poor Rajah of Chandragheri was compelled to fly before the advance of the Mussulmans, and to take refuge in Mysore, leaving his territory in the Carnatic, inclusive of the English settlement, in possession of the Mussulman king of Golconda, the modern Hyderabad.

Meantime the English at Fort St. George began buying up cottons and muslins, and selling looking glasses, knives, lead, and crimson and green cloths after their usual fashion. To the north of the Fort sprung up a large Native village of mud and bamboo, which formed the nucleus of the modern Black town. Immediately to the south was a little fishing village, where the inhabitants had been fishing and making nets since the days of Rama, and where they are fishing and making nets still, just as they did in days of yore, and utterly regardless of the world around. Further to the south, about three or four miles from the Fort, was the decaying Portuguese settlement of St. Thomé; whilst inland beyond the English territory were groups of native villages, which still give their names to the now fashionable quarters of the modern city of Madras. When the Rajah of Chandragheri fled into exile, the English obtained a fresh lease from the Shah of Golconda on the old terms of 1200 pagodas per annum; and also kept a Brahmin vakeel at the court, who transacted all the business, and sent them all the news.

The interior of the Fort was arranged in a strictly commercial style. There were some twenty soldiers, and a staff of civilians in the old fashioned grades of apprentices, writers, factors, and merchants. There was also a governor and a chaplain. All the

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* The old Hindoo empire of Bijianagur, extended during the fifteenth century over the greater part of Southern India, and thus nearly corresponded to the present limits of the Madras Presidency. Its metropolis on the river Toombuddra was literally constructed of granite of the cyclopean style of masonry; and to this day the ruins are said to be the finest in all India. There is a continued succession of streets, intersected by aqueducts and paved with granite, for a distance of three miles; whilst the temples, and other buildings public and private, are on a colossal scale and of the purest style of Hindoo architecture. The extent and grandeur of this city of the dead, are sufficient to indicate the greatness of the old Hindoo sovereignties before the advent of the Mussulmans. The Forts at Vellore and Chandragheri were built by the Bijianagur Rajahs. Ram Rajah the last ruler was defeated in 1564 on the plains of Tellicota by a confederacy of the four Mussulman Shahs of Ahmednuggur, Bejapoor, Golconda, and Beeder; and until within a comparatively recent period his head was preserved in the city of Bejapoor.

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civilians, from the youngest apprentice fresh from Christ's Hospital up to the governor himself, attended morning and evening prayers daily, with two sermons on Sundays, and something extra on Wednesdays. The Directors moreover supplied the Fort liberally with Bibles and Catechisms, and a copy of the five folio volumes of Poole's Synopsis for light reading. The scale of salaries was somewhat limited; apprentices only getting £5 a year, the chaplain £100, members of council £100, and the governor £300; but then considerable fortunes could be made by private trading. The entire establishment, excepting the soldiers, took their meals together, so that board and lodging were furnished by the Directors in addition to the pay. The whole English population of the place varied from a hundred to a hundred and fifty souls, according to the number of soldiers, which varied with the times or rather with the fears of the Directors at home. A number of native peons were also taken into military service, and armed with swords, bucklers, bows and arrrows, and other primitive weapons of the country. Morals were at a low ebb of course. Drunkenness and dicing were the great vices of the time; whilst both soldiers and civilians naturally inclined towards the women of the country, especially towards the Popish Portuguese women of St. Thomé. Sometimes they desired marriage, but this the chaplain resolutely refused to perform, unless the women solemnly renounced Popery, and promised to attend the Protestant chapel and profit by his teaching.*

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* Although drunkenness, duelling, gambling, and licentiousness were only too common, the strictest rules were laid down for preserving sobriety and morality. Sir William Langhorne in 1678 issued express orders,—and certainly his views were liberal,—that no person was to be allowed to drink above half a pint of arrack or brandy and one quart of wine at a time, under a penalty of one pagoda upon the housekeeper that supplied it, and 12 fanams (about a rupee) upon every guest that had exceeded that modest allowance. Drunkenness was to be punished by a fine or the stocks. All persons addicted in any way to licentiousness were to be imprisoned at the discretion of the Governor, and if not reclaimed were to be sent back to England. All persons telling a lie, or absenting themselves from morning or evening prayers, were to be fined four fanams for each offence. Persons being out of the Fort after eight o'clock in the evening were to be punished; and any one committing the heinous offence of getting over the walls of the Fort upon any pretence whatever, was to be kept in irons until the arrival of the ships, and then to be sent to England there to receive further condign punishment. It was also ordained that all persons swearing, cursing, banning, or blaspheming the sacred name of Almighty God should

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The position of some of the early Madras Governors must have been a very peculiar one. In Charles II's time the French and English were allies in Europe, but in the East they were rivals. On one occasion a French Admiral landed a force at St. Thomé, and captured the place from the Mussulman authorities; and the Madras Governor could not help the Mussulmans to drive them out because of the European alliance, and consequently had to give presents of scarlet broad cloth, looking glasses, sandals, and other similar articles to the Mussulman officers at St. Thomé, lest they should transmit complaints of his conduct to the court at Golconda. Then, again, the Native great men generally, extracted frequent presents by threatening to get the town rent raised. Moreover in 1677 the Mahrattas poured into the Carnatic under the celebrated Sivajee, and demanded presents, which were of course promptly forwarded. Meantime the Directors at home insisted upon collecting a house tax in their town at Madraspatanam, which was rapidly increasing in size and population; and this step threatened to depopulate the town, and was only carried out with great difficulty.

About 1688, the year of the "great and glorious" revolution at home, a serious danger threatened Fort St. George, and the place was put into a state of defence. The independent Mussulman kingdoms of the Dekhan had long been a source of annoyance to the Great Mogul; for every rebellious prince in the royal family of Delhi, every disgraced minister or disappointed general, rushed off to the Dekhan to secure a refuge, and in many cases to procure the means of revenge. The throne at Delhi was at this period held by Aurungzebe, the Oliver Cromwell of the East, and perhaps the greatest of all the Mogul Sovereigns. The conquest of the Dekhan was his favourite scheme, and the grand army of the Mogul was marched to Bijapore and Golconda, and the Mussulman Kings of the Dekhan ceased to be. Madras thus underwent a further change of masters, and had to forward large presents to the Mogul Officers. But

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pay a fine of four fanams for each offence; that any two persons, who should go out into the fields to decide a quarrel between them by the sword or fire arms, should be imprisoned for two months on nothing but rice and water; that any soldier giving another the lie should be made fast to a gun, and then receive ten small blows with a rattan, well laid on by the man to whom he had given the lie; and that any officer who should in any way connive at the offence, or at any mitigation of the punishment, should forfeit a month's wages.

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meantime Aurungzebe had awakened a new enemy who was ultimately to overthrow the Mogul power. A great army of Mahrattas under Sivajee poured into the Carnatic and plundered Conjeveram, only forty miles from Fort St. George, and then advanced upon Golconda. A protracted and desolating war between the Mahrattas and the Moguls ensued, which lasted for ten years, and more than once threatened to overwhelm Fort St. George. The principal domestic events in the history of the English settlement at this period were the institution of a Mayor, Aldermen and Burgesses in Madras; the rise of the Armenian community under special privileges; and a great exchange of feasting and festivities between the Dutch Governor of Pulicat and the English Governor of Fort St. George, who were of course very good friends during the reign of Dutch William. A famous naval fight, now quite forgotten, also took place between the English and French in the Madras roads and within view of the Fort; whilst the Madras territory was extended a little by the possession of some of the villages which make up the modern city of Madras. Throughout the whole period, interlopers, or pirates as they were charitably called, were very troublesome; whilst a rival Company started at home, and occasioned great loss and anxiety. These matters however are recorded in general history; the following story will prove more novel and entertaining, whilst largely illustrating the early relations between the English and the Moguls.

About the year 1700 Dawood Khan, a Mogul General of some eminence, was appointed by Aurungzebe to be Commander in Chief of the Carnatic, which of course included the little English territory of Madras. The great object of Dawood Khan was to obtain a large present from the English, and accordingly he visited St. Thomé, and hinted that he required the modest sum of ten thousand pagodas. At that time the Governor of Madras was Mr. Thomas Pitt, better known as the grandfather of the great Earl of Chatham, and the possessor of the great Pitt Diamond. Mr. Pitt was determined to thwart the avaricious Nabob, but for some months negociations were conducted with an outward show of the utmost possible cordiality. On one occasion,—Saturday, 12th July 1702—a splendid feast was given to the Nabob in the Consultation Room in Fort St. George. The whole entertainment was conducted on a magnificent scale. The train bands were ordered out, and the little streets of the Fort were lined with soldiers from St. Thomè gate to the Governor's quarters.

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A dinner of six hundred dishes was dressed and managed by a Persian inhabitant; at which the Nabob, the Dewan, and the Bukshee all ate and drank very heartily; and indeed the devotion of the Nabob to the cordial waters and French brandy must have been highly gratifying to his entertainers. After dinner the dancing girls were introduced into the Consultation Room to divert the Nabob; and about sunset the latter departed, announcing his intention of getting up early next morning to pay a visit to the ships in the roads. Next morning, however, it was reported that the Nabob had got so drunk the night before that he could not go. But these civilities did not divert Dawood Khan from his primary object—the ten thousand pagodas; and Mr. Pitt deemed it expedient to form a band of Portuguese volunteers, and indeed the Fort was kept in a state of constant alarm. On one occasion, when more than half intoxicated, the Nabob suddenly moved towards the Fort with a great detachment of horse and foot and all his elephants; but was induced to halt until Mr. Pitt could be informed of his arrival. The halt proved too much for the sobriety of the Mussulman lord, and he staggered into a Portuguese chapel and slept away until the evening, when he sent a messenger to Governor Pitt to tender his apologies for not coming, and to request the favour of a dozen more bottles of cordial waters. A few months afterwards affairs reached a climax. Dawood Khan made still greater demands, which Mr. Pitt resisted. At length the Mussulman fairly besieged the Fort, cut off all supplies, and seized all goods coming from up country. The blockade lasted for three months, after which some kind of compromise was effected, and the siege was raised.

Mr. Pitt was Governor of Madras during the unprecedentedly long period of eleven years. The most remarkable event in his career was the good understanding which he managed to effect with the Great Mogul at Delhi. Aurungzebe died in 1707, and his three sons as usual on such occasions, engaged in deadly conflict for the throne. Shah Alum the eldest took some steps to propitiate Mr. Pitt, in order to induce the English Governor to arrest and secure a dangerous brother, who might try and escape on board one of the vessels in the Madras roads and renew the conflict in Bengal. Governor Pitt in return sent the most fulsome letters of compliment, by which however he succeeded in obtaining many decided advantages for Madras. Subsequently Shah Alum gained the victory over his brothers, and secured the throne without any assistance from the English.

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The successor to Mr. Pitt, was Gulstone Addison, the eldest brother of the great Essayist. Poor Gulstone, however, died a month afterwards, leaving a fortune to his celebrated relative. In 1710 Dawood Khan was finally recalled, and Sadatullah Khan was appointed Dewan of the Carnatic, who is remarkable in history as being the first Dewan or Nabob of the Carnatic, who endeavoured to make the office hereditary. In 1712 Shah Alum died at Lahore, and another desperate fratricidal struggle took place between his four sons; which after some months terminated in the death of all four, and the accession of a nephew, known in history as Feroksere. About this time the celebrated Cheen Kulich Khan, the ancestor of the present Nizam, was appointed Soubah of the Dekhan, under the title of Nizam-ool-Moolk, or 'Regulator of the State', by which latter designation he is generally known. During the reign of Feroksere, the English settlement at Calcutta sent an embassy to Delhi; and a firman was obtained, which settled some disputes between the Governor of Fort St. George and the Nabob of the Carnatic, and was of course received at Madras with every demonstration of respect and rejoicing.* But the power of the Moguls was already on the decline. Feroksere owed his elevation to two Seiad brothers Abdullah and Hussein, and was anxious to escape from their thraldom. Fortune seemed to smile upon the attempt. Abdullah was vizier, and he removed the Nizam from the government of the Dekhan, and appointed Hussein in his room; and Feroksere secured the services of the deposed Nizam by proposing to make him Vizier in the room of Abdullah, who was to be assassinated. The plot was ripe for execution, for Hussein was away in the Dekhan. But all went wrong through the criminal weakness of Feroksere. He had a favourite,—a low profligate minion who was hated by the whole court, and who persuaded the King to postpone the execution of the plot, and to make him Vizier instead of the Nizam. Abdullah discovered the scheme, and saw that so long as Feroksere lived his own life was in imminent danger. Accordingly he made friends with the Nizam, and summoned Hussein from the Dekhan. The terrible events which followed have been but too often parallelled in Oriental history, but are well worthy of notice. Hussein reached Delhi with 30,000 horsemen, of whom 10,000 were Mahrattas. The very appearance of the Mahrattas, Hindoo robbers as they were, suggested ideas of

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* Copies of the correspondence between the envoys and the Calcutta governor are to be found in the Madras records.

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massacre and plunder to the Mussulman population of Delhi. In a word, the whole city was filled with dread, for every one felt that a terrible convulsion was at hand, and no one could foretell the issue of the struggle. A wild rumour suddenly brought matters to a climax. The Mussulmans rose against the Mahrattas, and plunder, fire, and massacre began. Within the Palace another conflict was taking place. Feroksere had fled for refuge to his harem, and refused to leave it. The rude soldiery of the Seiads rushed into the sacred apartments, and soon discovered the unhappy Emperor in an agony of terror, surrounded by his mother, wife, and daughter, and other princesses. Shrieks and prayers for mercy were of course unheeded. Feroksere was dragged away to a dark chamber, and the hot iron was drawn over his eyes; whilst the booming of cannon and strains of music were announcing to the people of Delhi that the wretched sovereign was deposed, and that another puppet king reigned in his stead. In a few hours order was restored, and two months afterwards the fatal bowstring ended the days of the unhappy Feroksere. We need not follow the Mogul history further. It will be sufficient to say that in 1720 Mohammed Shah reigned at Delhi, and the Nizam regained the government of the Dekhan.

Madras history during this period is marked by extreme quietude. The rent of 1200 pagodas was regularly paid to Sadatullah, the Nabob of the Carnatic; whilst the Nizam was so much occupied with resisting the Mahrattas, and endeavouring to establish his own independence in the Dekhan, that he does not appear to have interfered in the Carnatic, and certainly did not trouble himself about the little English settlement at Fort St. George. These had been money making times, but still the Company had found it necessary to appoint a Governor of Madras prepared to cut down the expenditure of the settlement; and this financial reform was achieved by a Scotchman who had been many years in the naval service, and is still remembered as Governor Macrae. The result was that in 1726 the entire public expenditure of Fort St. George, including all the charges for salaries, soldiers' pay, diet, repairs, miscellaneous charges, was reduced from 39,000 pagodas per annum to 35,000 pagodas only; or reckoning the pagoda at four rupees, or eight shillings sterling, which was about the rate of exchange in those days, from about £15,600 to £14,200 a year. At the same time the town revenues were 64,000 pagodas, or nearly double the whole expenditure of the settlement.

In 1727 a new charter from the Crown for the establishment

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of a Mayor and Corporation, was granted to the city of Madraspatanam, and was celebrated with much rejoicing, and especially with a great procession from the Governor's Garden House to the Fort, which would seem rather strange in these days. We copy the order of the procession as set down in a contemporary record, premising that Major Roach commanded the garrison, and that the Pedda Naik was the hereditary head of the town police :—

Major John Roach on horseback at the head of a company of Foot soldiers, with kettledrum, trumpet, and other music.
The Dancing Girls with the country music.
The Pedda Naik on horseback at the head of his Peons.
The Marshall with his staff on horseback.
The Court Attornies on horseback.
The Registrar carrying their old Charter on horseback.
The Serjeants with their Maces on horseback.
The old Mayor on the right hand and the new one on the left. } Six halberdiers.
The Aldermen, two and two, all on horseback. }
The Company's Chief Peon on horseback, with his Peons.
The Sheriff with white wand on horseback.
The Chief Gentry in the town on horseback.

In 1732 Sadatullah Khan, Nabob of the Carnatic, died of grief for the loss of his wife. He left no children, and his Nabobship was conferred on his nephew Dost Ali, who was called Nabob of Arcot from his residence in that capital, which was about sixty miles from Madras. Meantime the weakness of the Mogul, and the evil effects of the Mussulman rule were sharply felt in Southern India. Under the Hindoo Rajahs, the tanks or reservoirs of water, which are absolutely necessary in the Carnatic, where the rains are scanty and uncertain, were constantly kept in repair; but such had been the neglect or rapacity of the Nabobs of Arcot, that these tanks had been altogether neglected, and rice had risen to a famine price, and great privations were endured by the Native population.

Significant events were now transpiring in India which were to culminate in that great change in the relations between the English and the Native powers, which ultimately led to the establishment of the British supremacy. On the southern frontier of the territory administered by the Nabob of Arcot, and about two hundred miles to the southward of Madras, lay the little Hindoo kingdom of Trichinopoly. In 1732 the Rajah of Trichinopoly died without issue, and according to the custom of the time, his second and third wives burned

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themselves with his body, or in other words, became suttee. The first wife succeeded to the Government as Ranee, but her authority was disputed by a Prince of the blood. Under these circumstances, the Ranee appealed to Dost Ali, the Nabob of Arcot, for aid; and the latter sent an army under his son Subder Ali, and his son-in-law Chunda Sahib, to take possession of the kingdom. The name of Chunda Sahib should be borne in mind, as he conducted all the negociations on this occasion, and subsequently rendered himself famous in history. The army invaded the territory of Trichinopoly, but could not take the capital. At length the Ranee was induced by Chunda Sahib to admit a body of troops. Orme says that she had fallen in love with the latter gentleman, but this story is apocryphal. It is certain, however, that Chunda Sahib swore on the Koran, or rather on a brick wrapped with the same splendid covering that usually envelopes a Koran, that the troops so admitted should only be employed in the restoration of the Ranee, and should then be withdrawn. Of course such an oath was made to be broken; and it will be sufficient to say that Chunda Sahib speedily mastered the Fort, imprisoned the unfortunate Ranee, and made himself master of the kingdom.

These incidents were duly reported to the Governor of Madras by the vakeel at Arcot, but more important events were to follow. The Mahrattas were rapidly becoming a power in India. Nadir Shah, the usurper of the Persian throne, had advanced his empire over Afghanistan, and then marched on to Delhi. The sack, massacre, and outrage which followed in 1739 still form one of the darkest pages in oriental history. The little government at Fort St. George heard the story with dismay, but their more immediate fears were excited by the Mahrattas. In the year of the Delhi massacre, Fort St. George was put in the best posture of defence, for advices were pouring in from all quarters that the Mahrattas were coming. The Nabob Dost Ali gallantly prepared for action. The plain of the Carnatic is surrounded on its western frontier by a chain of ghauts, about 100 miles from the sea; and the Mahratta army was expected to enter by the pass or gorge of Damalcherry, about 100 miles westward of Madras. At this pass Dost Ali posted himself with a large army, but he was betrayed. The Mahrattas entered the Carnatic by another route, and then attacked Dost Ali in the rear; and on the 12th May 1740, the tidings reached Madras that Dost Ali was utterly defeated and slain. The excitement of that time is strikingly depicted in contemporary records.

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Volunteers were raised, sailors were brought in from the ships, provisions were stored, fresh guns mounted, native huts cleared away from before the walls; whilst the Mahrattas plundered Arcot, Conjeveram, and other places in the neighbourhood, and behaved in every respect like an army of relentless and remorseless robbers. Fortunately they turned to the south and seized Trichinopoly, after which Subder Ali, the son and successor of Dost Ali, succeeded in buying them off by the payment of ten lakhs of rupees. Eventually they returned through Mysore to Sattara, carrying away Chunda Sahib, late ruler of Trichinopoly, as their prisoner.

Subder Ali was thus relieved, but his distresses were not over. His end proved a tragical one. His father had kept back the tribute due to the Nizam, and consequently no sooner had the new Nabob been plundered by the Mahrattas, than he was called upon to send a vast sum to Hyderabad in the shape of arrears. Under such circumstances he affected extreme poverty, and a desire to go on a pilgrimage to Mecca; whilst he sent the women and children of his family, together with his treasures, to Madras; the wife and children of Chunda Sahib having already found protection at the French settlement of Pondicherry, then under the Government of the celebrated Dupleix. Subder Ali meantime neglected no means to satisfy the Nizam. He called upon the various commanders of towns and forts of the Carnatic to pay up their arrears of tribute, but of course met with excuses and delays, especially from Mortiz Ali, the Governor of the Fort of Vellore. The town of Arcot lies about 60 miles from Madras, and the Fort of Vellore about 20 miles further; and at this juncture Subder Ali moved from Arcot to Vellore, both to enjoy the protection afforded by the Fort, and to force Mortiz Ali to pay up his share of the arrears. His army encamped in the suburbs and under the walls, whilst he resided in the Fort constantly attended by a body of guards and a numerous retinue. But the festival of the Mohurrum arrived, and Subder Ali imprudently permitted the greater number of his retinue to spend two or three days with their families. The very day the leave had been granted his food was poisoned, but he threw off the effects and was induced to believe that he had only suffered from an attack of bile. Mortiz Ali now saw he had no time to lose. An Afghan was found, whose wife had been outraged by Subder Ali, and who was supposed to be eager for revenge. A few of those black Abyssian slaves, who are ever ready to commit any atrocity required by their masters, were engaged to assist

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the Afghan. At midnight the party entered the bed chamber of Subder Ali. The servants sleeping round the bed were at once seized and disarmed. The Nabob tried to escape through the window, but was arrested by the Afghan, who first upbraided him with his adultery, and then avenged the outrage by stabbing him with his poinard until he was dead. The next morning the news of the tragedy was carried to the army, but on promise of receiving all arrears of pay, the soldiers at once acknowledged Mortiz Ali as their new Nabob. The latter proceeded to Arcot with great pomp, in order to seize the treasures which would enable him to keep his promise, but found that the said treasures had all been sent away to Madras; and the soldiers, not receiving their expected reward, began to feel some compunctions for the deed which had been committed. The palace was surrounded by a tumultuous mob of excited sepoys; and Mortiz Ali in great terror disguised himself as a woman, and quitted Arcot at night in a covered palanquin, and proceeded with all speed to Vellore. Next morning Seid Mahomed Khan, son of Subder Ali, was proclaimed Nabob.

Scarcely had this revolution transpired, when tidings arrived that the Nizam-ool-Moolk had left the Dekhan with an overwhelming army, and was approaching the Carnatic. This event naturally created a great sensation. The Nizam marched through the Carnatic to Trichinopoly, which he wrested from the Mahrattas. Here an English embassy from Fort St. George humbly waited upon him, but were far too insignificant to be honoured with an interview. The Nizam then returned to Arcot, where he appointed an adventurer named Anwar-oo-deen to be Nabob for a time, promising to give the Nabobship to Seid Mohamed as soon as the latter arrived at manhood. Thus Anwar-oo-deen had a positive interest in the death of the young prince, and another tragedy soon took place in the palace of Arcot, even more terrible than that which had recently transpired in the blood-stained walls of Vellore. In June 1744 the marriage of one of the relations of the late Subder Ali was celebrated at Arcot, and the young Seid Mahomed presided at the ceremony as head of the family. All the members of the house, including even Mortiz Ali, were present; and the regent Anwar-oo-deen was also invited. On the morning of the festival, twelve Afghan soldiers, with their captain at their head, approached the young prince, and, insolently demanded their arrears of pay; and, after some expostulations from the attendants, were turned out of the palace by force.

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Further on in the day, however, they advanced again and apologized for their disrespectful behaviour; and this submission removed all further suspicion of their conduct. In the evening, Anwar-oo-deen was said to be approaching, and accordingly the young prince and all his guests arose from their seats in the reception hall, and passed into the vestibule in order to receive the regent at the foot of the steps which led to it. Foremost among the spectators below were the thirteen Afghans, who saluted Seid Mahomed Khan with great reverence; and their captain then ascended the steps with the air of a man desirous of propitiating his lord. He was thus permitted to approach the person of Seid Mahomed, when he suddenly drew his dagger and stabbed the prince to the heart with the first blow. The marriage rejoicings were in a moment overshadowed with horror. 'A thousand swords and poniards were drawn in an in-'stant; the murderer was cut to pieces on the very spot; and 'ten of his accomplices suffered the same fate from the fury of 'the populace below.'*

By this deed of blood Anwar-oo-deen became Nabob of the Carnatic; but the extent of his implication is a mystery which in all probability will never be known. He was the founder of the family of which the last scion died in 1856, and who is still represented by Prince Azim Jah.

Such was the state of things when in 1744 the war of the Austrian succession drew Great Britain into collision with France, Mr. Morse was then Governor of Madras, and M. Dupleix was Governor of Pondicherry. Old Morse was a Company's merchant, and no more; Dupleix, on the other hand, was not only a French merchant but an Indian statesman. The object of Morse was to keep down the expenditure, and present a favourable balance sheet every year to his Honorable Masters. The object of Dupleix was to gain a share in the sovereignty of Southern India; and to effect this end he employed every resource at his disposal, utterly regardless either of the balance sheet or of his Honorable Masters the French Directors. Both the English and French Governments prepared to send out expeditions for the protection of the settlements of their respective East India Companies. Thus an English fleet was sent out by the Government of George II. under the command of Commodore Barnet; and a French fleet was dispatched by the Government of Louis XV under the command of M. Labourdonnais.

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* Orme.

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At this crisis Dupleix was in his element, whilst his English rivals were nowhere. The far seeing Frenchman seems to have had a wholesome horror of actual warfare, but was endowed with a brilliant genius for intrigue, and perhaps for chicanery. The English fleet was the first to arrive in the Bay of Bengal, but Dupleix prevailed on the Nabob Anwar-oo-deen to command the English not to make war within the limits of the Carnatic, and by these means he undoubtedly preserved Pondicherry from an attack by sea. Dupleix also liberally entertained the wife and family of Chunda Sahib at Pondicherry, and even corresponded privately with Chunda Sahib himself, who was still a prisoner in the hands of the Mahrattas; for the illustrious captive was representative of the old family of Sadatulla Khan, and might succeed in a future convulsion in overturning the authority of Anwar-oo-deen. At last in 1746, Labourdonnais arrived, and took Madras almost without a blow, but on the express stipulation that it should be restored on the payment of a moderate ransom. Dupleix here made a grand display of his intriguing powers. He amused the Nabob by assuring him that though Madras had been captured by the French, yet it should be ultimately delivered up to him as lord paramount. He utterly refused to ratify the terms upon which Madras had capitulated to Labourdonnais: he declined to deliver up the place on ransom, he seized all the private property of the English inhabitants, and he marched off all the leading people to Pondicherry as prisoners of war, One significant event followed these unprincipled transactions. The Nabob Anwar-oo-deen was naturally enraged at being overreached by the wily Frenchman, and marched an army of Mussulmans to capture Madras; but to his intense surprise and mortification his army was beaten back by the French Artillery, and thus the spell was in a great measure broken which had hitherto held the Europeans in subjection to the native powers.

On the fall of Madras the English had removed the seat of Government on the Coast of Coromandel to their settlement at Fort St. David, about 100 miles to the south of Madras, and 16 miles to the south of Pondicherry. Dupleix attacked Fort St. David, but the English were assisted by the Nabob and the attempt failed. The English in return attempted to capture Pondicherry, but that attempt also failed. At last in 1749 the war was brought to a conclusion by the peace of Aix-la-Chapelle; and to the bitter regret of Dupleix, Madras and Fort St. George were restored to the English, after an occupation of two years.

But a new revolution was to convulse not only the Carnatic

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but the Dekhan, and for a brief interval Dupleix was to realize his dream of empire. At the very moment that he was irritated beyond measure at the terms of the treaty of Aix-la-Chapelle, the news arrived that the old Nizam of the Dekhan had been gathered to his fathers at the ripe age of a hundred and four years, and that two claimants had started for the vacant throne at Hyderabad, namely, Nazir Jung, a son of the deceased Nizam, and Mirzaffir Jung a grandson. At the same time Chunda Sahib had procured his release from the Mahrattas, and was prepared to make an effort to wrest the Nabobship of the Carnatic out of the hands of Anwar-oo-deen. Nazir Jung was far away to the north, fighting an elder brother, and apparently regardless of the designs of his nephew Mirzaffir Jung. Accordingly Chunda Sahib managed to form an alliance with Mirzaffir Jung, and Dupleix became at once the life and soul of the confederacy. Money and troops were raised, and it was decided that the united forces should in the first instance make Chunda Sahib Nabob of the Carnatic; and then make Mirzaffir Jung Nizam of the Dekhan.

The first part of the programme was cleverly performed. Anwar-oo-deen, the suspected murderer of the young Seid Mahomed, was utterly defeated and slain. Arcot surrendered without resistance; and the English at Madras were thunderstruck by the news that the two allies of Dupleix had achieved the most brilliant success; that Mirzaffir Jung had assumed the state and title of Nizam of the Dekhan, and had then on his own authority appointed Chunda Sahib Nabob of the Carnatic. The new Nizam and new Nabob next proceeded to Pondicherry, where they were received with all respect and pomp by Dupleix. One trifling achievement was alone required to consummate this success. Mahomed Ali, the son and heir of Anwar-oo-deen, and an important man in after years, had fled to the strong city of Trichinopoly; and the capture of that place alone remained to complete the conquest of the Carnatic, and the utter overthrow of the family of Anwar-oo-deen. Accordingly Dupleix pressed in the strongest terms for an immediate march upon Trichinopoly; but the two Native Princes seemed indisposed to turn their backs upon the pomps and pleasures of Pondicherry; and moreover, at length confessed that their treasures were all exhausted, and that their army would soon be clamouring for pay. Under such circumstances, the allies at last marched not upon Trichinopoly but upon Tanjore, where they demanded a large sum from the Rajah. The result might have been

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anticipated. The negociations were spun out to a dreary length. Demands, threats, protestations of poverty, excuses, and lies of all kinds, rendered the process of extracting the subsidy a most tedious and protracted affair. At last bombardment was tried, and then the Rajah consented to pay a large sum. But the delay was not yet over. The Rajah paid up the first instalment in driblets; and that too not in pagodas or rupees, but in the shape of gold and silver plate, old coins, jewels, and other species of nondescript wealth. At this moment news arrived that Nazir Jung had marched into the Carnatic. The armies met at Ginjee, and the result seemed to have ruined for ever the cause of the allies. Dupleix was not a fighting man, and accordingly had sent M. D'Auteuil to command his contingent. Then the French Officers mutinied for pay; D'Auteuil and Chunda Sahib fled to Pondicherry; whilst Mirzaffir Jung surrendered at discretion to his uncle, and was immediately thrown into irons.

Dupleix's schemes were thus utterly defeated, but his spirit was unconquerable. He opened one negociation with Nazir Jung, and another with some discontented Afghan chiefs in Nazir Jung's army. The result was that the French attacked Nazir Jung's army, and the Afghans refused to repel them. Nazir Jung was shot dead by one of the insurgents, and Mirzaffir Jung was immediately freed from his irons, and hailed Nizam of the Dekhan.

To describe the emotions of Chunda Sahib and Dupleix when the news reached Pondicherry, is beyond our power. Chunda Sahib rushed out of his house without palanquin or attendance of any kind, and threw himself into the arms of Dupleix. The two friends, the Mussulman and the Frenchman, embraced like men escaped from shipwreck. Guns were fired, Te Deums were sung, Mirzaffir Jung made a triumphant entry into Pondicherry, and Dupleix arrayed in the costume of a Nabob was created Governor of all India south of the river Kistna for the Great Mogul. A few months afterwards Mirzaffir Jung was himself slain by the Afghans, but his brother Salabut Jung was at once raised to the vacant throne, and thus the French influence continued to predominate in the Court of the Nizam.

The feelings of the English during the progress of these extraordinary revolutions must have been mortifying in the extreme. They were still prepared to support Mohammed Ali, the son of Anwar-oo-deen; but Mohammed Ali was shut up in the Fort of Trichinopoly, which was daily expected to fall into the hands of Chunda Sahib. Moreover the English generally were

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utterly dispirited and unnerved. At this juncture the English Company was saved by the genius of Clive. He volunteered to draw off Chunda Sahib from Trichinopoly by making an attack on Arcot. He was only twenty-five years of age, and only 500 soldiers could be spared; but the crisis was a desperate one, and his services were accepted. Amidst a storm of thunder, lightning, and rain, Clive pushed on to the gates of Arcot. The garrison fled in a panic, and his little army entered without a blow. Clive instantly prepared for a siege. The garrison recovered its panic and encamped close to the town; but Clive marched out at mid-night, and completely routed them without losing a man. Matters seemed now to wear a serious aspect for Chunda Sahib and the French. An army of ten thousand men was collected and sent against Clive, under the command of a son of Chunda Sahib. The siege lasted fifty days. Threats and bribes were tried in vain to induce Clive to capitulate. At last an overwhelming attack was made on the great day of the Mohurrum; but Clive resisted the most desperate onsets, and eventually the siege was raised. To this day the defence of Arcot must be regarded as one of the most brilliant achievements in military history. It turned the tide of affairs throughout the whole of the Carnatic. Mysoreans and the Mahrattas alike came forward to support the cause of Mohammed Ali and the English. The French and Chunda Sahib were compelled to retire from the walls of Trichinopoly to the fortified pagoda of Seringham; and were there pressed so closely that their forces deserted in crowds. At last Chunda Sahib surrendered to the Rajah of Tanjore, who put him to death; whilst the French troops surrendered prisoners of war. Subsequently Trichinopoly was again besieged by the French, but the details are of little interest now. In 1754 the war was brought to a close, Dupleix was recalled, and Mohammed Ali, the ally of the English, was acknowledged Nabob of the Carnatic, a dignity which has recently been brought definitely to a close.

The English and French at Madras and Pondicherry would now have been content to live together like good neighbours, when the seven years war, which broke out in 1756, once more brought them into collision. But this war does not come within the scope of the present review, which was intended chiefly to illustrate the early progress of the Madras Presidency, and the early relations between the English settlers and the Native powers. The unsuccessful siege of Fort St. George by Count Lally in 1758-59, and the successful capture of Pondicherry in 1761 by Sir Eyre Coote, are thus principally worthy of notice

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from the prominent place they occupy in the graphic pages of Robert Orme.

The subsequent century of Madras history remains to be written, and when written will be found to possess a value and interest at present wholly unknown. It would not only unfold the gradual extension of the British power from a jageer to an empire, but it would exhibit the history of those patient administrators who conscientiously sought to adapt the Government to the people, rather than to force the people to accept their own foreign ideas. But upon this point we need not now dwell.

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ART. V.—1. *Directions to Revenue Officers.*

2. *Report of the Indigo Commission.*

3. *Report of Select Committee of the House of Commons on Colonisation and Settlement.*

4. *Col. Baird Smith's Famine Reports.*

5. *Act X.* 1859.

IN early life we are full of faith in the unfailing efficacy of abstract truths. We assume, and apparently without much inconsistency, that what is true must be irresistible and that great truths have only to be proved to be so, and all mankind will come together and join shoulders to carry them out in practice. But, as we shake off the dreams of youth, the stern features of a new life slowly declare themselves, and in the presence of unpleasant and undeniable facts we are reduced to take a more gloomy view of human nature and to accept the painful maxim that political fallacies are at least as powerful as political truths.

For a period of one hundred years we have been consecrating political errors in a country from which the civilisation of the West has been scrupulously excluded. India has had a strange national existence under a government which has been, perhaps out of compliment, called an enlightened despotism.

If in this country we have brought a slight on our religion, imprecations on our law courts, disgrace on our policy, and a slur on our credit, we have likewise failed to protect the most fruitful land in the world against the curse of poverty. Happily, indeed, in some respects the past is relaxing somewhat its fatal hold on the present and resigning its influence over the future: in a proclamation, which but for the absence of earnestness would

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have inaugurated an era, we declared Christianity to be the religion of the rulers of this country; the laws are being steadily infused with the broad principles of equity; our public policy is more manly if not yet actually dignified; our credit has been restored, and growing intelligence may be remarked throughout the country, yet the evil which has so long clung to the land of India is still permitted to continue its work of ruin and mischief, while vacillation has undone what a happy accident had almost realised.

Recent events have gone far to engender a feeling of uncertainty in the public mind, and to damp the hopes raised by some of the last and most important political acts of Lord Canning. Under the circumstances, it is impossible to foresee, much less to predict, the time when the public interests, so thoughtlessly neglected now, will receive the attention which they not only deserve but absolutely require.

It can hardly be denied that the difficulties which have beset the solution of the land question have checked and retarded the material prosperity of this country. Whenever property in land is burdened with injudicious conditions, the progress of one of the most useful classes of society is necessarily arrested. Indeed, the importance of the subject is such as can hardly be exaggerated. The earth to which we all return is our most cherished acquisition. The strongest passion in the human breast is the love of land. Money making ever points to it; capital seeks it all over the world; small landlords labor to become great ones; while the stream of emigration turned from kindred Australia, it poured in full tide on the states of the American Union, because there land was less burdened by the evils of special legislation.

In a country like this where commercial enterprise is so miserably confined the fate of the land determines the fate of society. In India the question affecting land affects the well being of native society; it regulates the happiness of millions; it controls their criminal statistics; and can arm or disarm the energy of the class to whose labor society is so greatly indebted. Whether for good or for evil the treatment of the land question in India has marked epochs in her social history which cannot escape the notice of even a casual observer. The solution of this difficulty cannot any longer be deferred without also deferring the progress of a people painfully backward in enterprise. Land has, of late, acquired a value which renders it a matter of the last importance that it should no longer be allowed to deteriorate under the influence of imperfect legislation. We shall not discuss here the danger of resisting a revolution which tends to increase the value of property.

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It is not easy to attach convertible value to land in a country so peculiarly situated as India; but when various causes have combined to effect this result, there is, placed at the disposal of society a powerful means of resisting the effects of those awful calamities which overtake us in times of peace.

Agrarian troubles generally spring from a conflict between a vitiated land system and the passion for land from which the most thriftless classes of an agricultural society are not free; let us not mistake them for the troubles which arise from the unpleasant reminiscences of past injuries. When Sir Robert Peel set on foot the famous Devon Commission, he is said to have stated to the House of Commons that the distempers which affected Ireland were material evils, and may be traced to a land system, which almost disorganized society by disturbing the natural relations between landlord and tenant on which alone depend the hopes of a lasting peace.

Whether we look for tranquillity in Bengal to the social welfare of the millions who are bound to the soil, or to the prosperity of those important interests which unite England and India in commercial harmony, we must endeavour to improve the system under which property in land can be acquired and held under the government of India. It is not yet a vain hope that, with the solution of the main puzzle, the collateral difficulties which impede the growth of the spirit of enterprise in native society will also be successfully overcome.

'Who is not weary and sad,' asks Miss Martineau, 'at 'the mere mention of land tenures in India'? Whatever may be the nature of the feeling roused by the 'mere mention' of the subject, we cannot deny that the evil, which so thoroughly pervades it, has grown to such dimensions as to leave us no other option but a speedy and practical treatment of the disease. Twenty-five years ago the subject received an amount of attention which was certainly not to have been expected from the ignorance which then prevailed on all matters connected with the land of the country; whether the statesmen of those days anticipated the difficulties which now beset our path, or whether the inquiry was only a matter of routine, the discussions of those days are on record, though as a matter of course unanimity of conviction on such a subject was not consistent with either the zeal or the ignorance of the men who took part in it; yet the absence of unanimity, has led to the complications which we have now such just cause to deplore. Each party appropriated to a province the use and benefit of its favorite theory, and freely experimentalised

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upon, what it considered, its own exclusive domain. The results of these experiments are the different land systems which now prevail in this country. But even with the experience of a century before us, we have not acquired sufficient confidence to decide on the claims of the contending theories. We may study to neglect the laws of nature, but they assert themselves against the obstacles contrived by human ignorance and stupidity. Though we have failed to elect the most practicable from among these rural systems or to substitute a better in their place, the evils with which these systems are so largely leavened have borne fruit, and each after its kind.

One conclusion, however, is inevitable: the systems which necessitate prejudicial protection to property and a dangerous amount of over-government cannot work with the progress of commerce. The existing theories must disappear under the altered relations of landlord and tenant which are indispensable to the creation of capital. It would be wise, while yet it is possible, to save society from the rude shocks to which it will be exposed, if the disease which now afflicts it, is allowed to work out its own cure.

Whether these precautions be adopted or not, the course of events cannot be resisted. The changes which are looming in the future involve the destinies of India. The machinery by which a small revenue is raised with oppression must give place to one which is capable of increasing the productive powers of land and labor without over-taxing them. The change must evidently be of a radical character, and we must be prepared to forget the policy which derives its name from the miserable traditions of a century of misrule.

It is admitted by one of the most enlightened statesmen of the old school, 'that the land tax is generally so high, that it 'cannot well be higher;' and yet we cannot venture to deny that the public coffers have never been full, and that we have recklessly rejected the means of replenishing them. It is also alleged, without any exaggeration, that we extort all we can from every available source of income, yet our revenue has not been such as to secure us against a formidable deficit. We have cultivated only a fifth of the cultivable land of the country, and yet we find the desire to increase cultivation contemptibly weak!

The origin of the evil which has so far frustrated all our attempts to secure to the natives the advantages of an enlightened despotism, must be sought elsewhere than in the character of the people or the quality of the soil; it taints our public policy,

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our judicial courts, and that system of government under which both land and labor have suffered so long. A faulty land system has been so long perpetuated by a faulty judicial machinery that they now seem only to stand in need of mutual help to complete the work of mischief. A weak executive, contradictory and vague laws, are evils great enough to counteract the merits of the best land system in the world, but if we add to these a land system almost paralysed with inherent defects, private virtue and private enterprise can alone save society from that state of stagnation which precedes the rough work of disorganisation.

When a regulation-hampered judiciary virtually closed the door to legal remedies, society was gradually thrown back to that state of existence in which the power to act is the only justification of the act itself. While such was the danger which beset our best guarantees of administrative success, empirical statesmen hazarded a general censure on the judicial machinery and suspended law to check agrarian insurrection. It is stated that the late Company estimated its fiscal officers above its lawyers and politicians, but if such was the fact, it only illustrates the proneness of public bodies to preach virtue without the courage to practise it. If public approbation could instil genius into the official mind, we might by this time have reckoned among our Lushingtons and Dorins some men who would have the temerity to adopt the most elementary principles of political economy; but unfortunately it was essential to official success that the traditionary policy should be preserved in its integrity, and our fiscal officers were too well satisfied with lucrative subordination to incur the danger of enunciating new principles of land economy unacceptable to the traditionists. Thus the defects of the land system were now placed on the law courts which did not originate them, and then on the landlords who had so much to complain of in them, while the evil worked its way far beyond the reach of wild doctrinaires who still hoped for success by the application of exploded specifics.

The disease at length assumed that chronic form which necessitates immediate and severe remedies; but unhappily for the public, while we stood in need of a mind gifted with a ready power of analysis and a will that would not swerve from its honest though severe purpose, we were favoured with philanthropic hearts which swelled with sympathy for the patient. While probing the wound might have led to eventual recovery, we tenderly concealed the rottenness with ointment and blessed our good

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fortune that philanthropy was so much more welcome than professional skill.

Undoubtedly we had no reason to expect a successful unravelling of the land difficulty by the hands of those who though possessing a very kind heart and benevolent disposition, were yet wanting in a knowledge of the nature and bearing of the various tenures which obtain in the country and had only a few isolated and purely local facts, learned by personal experience, to guide them. Arm ignorant men with arbitrary power and afflict them with a predisposition to morbid philanthropy, and you may then form some idea of the working men who some thirty years ago were called upon to reduce into some sort of order and coherence the rules and orders which threatened the value of land all over the country. They succeeded, as they only could succeed, by despotically adjudicating valuable rights and perpetuating certain evil in the place of doubtful good. The published records of Government do not expose the enormities which were then committed under the sanction of law, but yet enough has been admitted to justify the impression that the evils themselves could not have been worse than the remedies which were to work the cure: 'orders were passed so averse to justice that they could not be 'carried out.'

In 1821 an attempt was made to restore order where confusion was so dangerously rife. Of the provision then made we can with justice remark that, considering the strong bias which influenced the official mind in favour of socialism, they restored to society an amount of life and intelligence which was incomparably superior to a state of simple existence. The Act which next propounded the new theory was deficient in practicability; in 1833 the famous Act IX. which is in fact a useful modification of Act VII. of 1822, was passed, and order partially reclaimed what had so long been wrested from it by anarchy.

We purpose in the following pages to investigate the causes which led to the failure of the different land systems of India, and to suggest means for remedying the defects which still retard the prosperity of the landed interest of the country.

Our first and most enduring mistake was to act under the influence of oriental traditions and to assume the position of the universal landlord of the country. The exploded principles of socialism, which have been condemned in Europe, were accepted here as the only true guides of public conduct in relation to property in land. This levelling philosophy found advocates

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among those who were themselves the creatures of a social organization which they taught the Indian public to condemn as monopoly. Lord Harris did not scruple to assert what was perhaps too much tainted with the leaven of the traditionary policy to be distasteful to the lords of Leadenhall, that the land of a country was government property, and government should 'distribute' it so as to ensure the greatest amount of good to the public and the individual cultivators of the soil. The principle, which was so easily enunciated, was certainly difficult to carry out, and if it was not wholly impracticable, its success was regarded as a dangerous contingency.

To admit that socialism has ignominously failed in a country which wealth reclaimed from waste or conquered from a race of aboriginal cannibals, and yet to adopt it where the most complicated rights to land have existed from time out of memory, was simply to perpetuate an act of legal plunder which may succeed, but cannot be justified. With the best intentions in the world no doubt we have condemned to ruin influential men, whose only crime seems to have been the possession of large property.

The fiat went forth, and virtually though only for a time, the land of the country was placed in the hands of one class of our subjects and the capital in the hands of another. The pet theory of Government landlordism was carried out at the cost of the sacrifice of a body of men who were universally regarded as the natural lords of the soil.

When Lord Canning proposed the abolition of all land tenures in Oude, men who were afraid to espouse a measure so recklessly bold were yet pleased with what was a clear attempt to place the land of that province at the disposal of the most careless landlord it is possible to imagine. Even to them the justice of the measure seemed hardly capable of defence, but the end was regarded as a full atonement. To say that the scheme had been long approved of by English economists and speculators is to say but little in its defence, while it is but fair to remark that it could not have been more completely condemned than by the adverse judgment of men whom it was intended to benefit.* It is hardly safe for any Government to indulge too far in the paternal maxim that we are to trust more to our own conscience than to the conscience or wishes of our subjects.

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* With but one exception our economists have carefully avoided the examination of the burdens on land, and yet they have hardly ever hesitated to speak authoritatively on the land tax of India, and on the subject of land tenures generally.

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When we assumed in this country, what has not unfairly been called the 'degrading position of a landlord,' those who could look into its distant consequences could not predict any good either to those who assumed the position or to those over whom it was assumed. Had land been subject to a reasonable tax as a 'chargeable property' the prosperity of the agricultural and hence of the commercial classes would have added to the taxable resources of the Government: but having seized the very vitals of a society essentially agricultural, and having availed ourselves of all the existing appliances for extracting the best part of our public wants from them, we have not only impoverished the land but unfairly confined the operations of indirect taxation. Under the direct control of land by government we have realised much from the land but have not realised enough; we have not worked its resources and yet the sources of income seem to be exhausted and poverty on the increase.

That land was held in private proprietorship before the conquest of the country by foreign invaders is a fact which the advocates of government landlordism do not venture to deny, but yet they assert that the Government to which we succeeded had a lien on the land, and hence it is argued naturally enough that we have succeeded to that right. If we look to the country where the theory might have been carried out in comparative safety, we find that government control and interference characterised by the settlers and the aborigines, in terms of seditious severity. To the abominable policy of Government being the sole purchaser of land is ascribed the evils which have attended our occupation of the fertile soil of New Zealand. While private traffic in land has not developed any peculiar evil, the system adopted by Government has twice lead us into a war with the natives, and if Government will condescend to be a perpetual supplicant for land it cannot at the same time be the protecting arbiter.

But in India it has been generally accepted that the East India Company, succeeding to the various native Governments, became absolute proprietor of the land, and that private property in land can only exist under its warranty. This interdict on private property is an idea borrowed from oriental habits, and has been guarded by a commercial jealousy which even community of race and feeling could not disarm. The unscrupulous assertion of this dangerous prerogative has retarded the progress of civilization, withholding the investment of capital and the devotion of energy from a country so happily circumstanced

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by nature. A jealous government was not unwilling to avail itself of a power which would include 'interlopers' and keep the natives well 'in hand,' though it is not less true that the efforts of government cannot develope the material resources of a country, much less restore life and intelligence to its decaying society. We are, however, beginning to value, for what it is worth, a theory which at one time was exceedingly popular and cannot now boast of the support of a single advocate of reputation. We have even gone so far as gladly to assent to Mr. Campbell's sneer and to declare that land 'was to be private 'property with right to abuse and mismanage it at the discretion 'of its owner.' We are gradually beginning to recognise the force of the well known maxim that, as regards property in land, the energies of individuals are of greater value to society than the boasted influence of the most powerful Government in the world. We are growing in our appreciation of the importance of individual interest in land, and we are not unwilling to renounce all faith in the cumbrous machinery which has kept the land of this country free from the influence of private proprietors.

The experience on which we ground our distrust of the policy which condemns a large country to a state of prolonged pupilage is not likely to suffer from the facts which are daily brought to light. The *khas* or direct Government management of land has achieved a painful identity with mismanagement; it has borne fruits which we have proclaimed to the world by our determination to get rid of all *khas* states, and we have already abandoned our hold of five hundred such estates within two years. It seems rather strange that though we have betrayed no extraordinary reluctance to grant freedom to trade and commerce, we have been painfully tenacious of our lien on land. Times, no doubt, have changed since the days of the resumption-panacea, when every piece of land resumed by Government was considered as happy a spot on earth as the imagination could well conceive; but unpleasant facts have since come to light, and these resumed lands have not been found to conduce much to the happiness of society or to the coffers of the public exchequer.

The origin of *khas* management may be traced in the unhappy results of those defects which we were unable to separate from what was essentially good in the Perpetual Settlement of Bengal. We took fright at the appearance of evils which we could not foresee, and in our love of extremes we were resolved as far as it lay in our power, never again to allow land to dribble through our fingers; we were not only eager to acquire land, but wherever

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it was rescued from private proprietors we were determined not to abandon it again to the hands of selfish managers. Where only one evil existed before we now succeeded in adding another; that was all that the *khas* management has done or was expected to do. We have inflicted our wisdom on a whole Presidency, and, under the ill discharged duties of a landlord, Government has earned deserved unpopularity. Well may Mr. Campbell remark that there is a desirable mean between a blind bestowal of absolute right and a creation of limited interest in the land.

The secret of the failure of *khas* management does not lie too deep for even ordinary research. Principles, with which the students of political economy were familiar, had been lost sight of, and in a fit of philanthropy Government was content with the assumption of an anomalous relation to the private owners of the Government. Under direct management the fostering care of the individual was wanting, while those who were most intimately concerned in the fate of the land incurred all the risks without an adequate share in the profits. The needy millions who thus lowered their heads to this Governmental Juggernaut were, if we can use the phrase, raised above the evil influence of a failure by hopeless poverty. On one side was the indifference of a public body, and on the other the unremunerative exertions of the cultivating classes of India: under their united influence land reluctantly produced a small return.

The middle classes of India, whom Government regarded as an impediment to national progress, were carefully removed, and their place was allotted to the cultivators who were destined to enjoy the advantage of the immediate guardianship of a benevolent Government; yet our first step towards the carrying out of the new policy was to create swarms of native officials and native speculators, who neither possessed ability to command respect nor honesty to win the good will of their charge. Without character or principle the Government hirelings robbed the ryots and embezzled public money, while the crafty speculators, who had only a passing interest in the land, proved even worse than the authorised despoilers of the ryot's rights: the native collectors had a longer term allowed for their nefarious work and naturally enough the average intensity of their violence was weaker when compared with that of the speculating capitalists, who had to do all they could within ten short years. Both, however, were busy in converting their opportunities into their money's worth, and in securing to the cultivators all the miseries of direct management in the shortest space of time

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practicable. In short, Government has proved the worst manager of land it is possible to imagine, and after a short though bitter experience we have reluctantly admitted that the resumption laws might as well not have been passed, and that Government might well have abandoned an impossible duty for others more befitting and necessary.

Of the three great modes of 'settlement' the Ryotwar is the very incarnation of the ideas which first suggested direct management and the destruction of the middle-class. Nearly the whole of the Madras and portions of the Bombay Presidency suffer from the evils which arise out of a system borrowed from the school of socialism.

The Ryotwary is a direct holding on which payment is made at the close of the official year for land actually occupied, which holding may be renewed or relinquished at the pleasure of the cultivating ryot, while Government appropriates to itself the whole of the rent like a private individual. Government assumes all the difficult functions of a landlord and deals with the cultivators as tenants. The credit of originating this system, or as it is not unfairly called *this want of a system*, is due to a Mahomedan chieftain who sacrificed all superior land tenures in his country with the view of subjecting the cultivators to the oppression of an all powerful proprietor. Without avowing Tippoo Sahib's object we have imitated his example, and yet his notorious wealth would lead one to suppose that the system was remunerative when it was nursed by an unscrupulous despot.

That some such patriarchal mode of dealing with land should have found favor with weak minded philanthropists is not a fact for wonder, but that after nearly a century of failures it finds zealous advocates in high quarters only proves the tenacity of political fallacies. With the introduction of the Ryotwar system, middle men, the chief stay of indigent cultivators, have disappeared with their capital; and the tillers of the soil thus deprived of their natural guardians have had to lean for support on a power who could barely reach them. But government owns and appropriates the only surplus production of the land, while the Ryotwary cultivators are destined to the misery which cannot be avoided in the absence of capital.

Lord Harris remarks with pitiful simplicity that he entertains 'serious doubts' of the correctness of the opinion that the defects of the Madras land system were the chief cause of the degraded condition of the ryotwary cultivators. His lord-

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ship admits their poverty and their wretchedness generally, but attributes them to the principle which he has elsewhere advocated, that small holdings render poverty inevitable. We should like to be told how Lord Harris hopes to extricate the Madras ryot from his difficulties as long as he holds miserably small patches of land under the most uncertain and capricious tenure it was possible for human ignorance to introduce? If Lord Harris, after his admission that poverty and small holdings were inseparable, had had the courage to investigate the nature of small possessions in general, he might have succeeded in solving his 'serious doubts' as to the merits of the system so opposed to the growth of capital.

We seriously question if there is any system of land tenures in any other country in the world which renders the growth of population an unqualified evil, and whether, if such was the influence of the Madras system, that system was not condemned by that single fact? Land neglected, the natural resources of the country undeveloped, increase of population an evil, and emigration a necessity, are evils which even with men who are unwilling to trace events to their causes would carry weight and importance.

It has been computed that for each acre of cultivated land in the Madras Presidency, five are lying fallow. Land cannot be sold for rent arrears for the simple reason that land in Madras has no marketable value, and 'the contentions there begin,' says Sir J. P. Grant, 'when a ryot is forced not to give up but to take land.' In Ireland about twenty years ago hungry swarms were starving on the surface of a rich soil while the country was bending under the weight of impoverished cultivators and falling out of cultivation in the absence of men whose capital could replace what neglect and ignorance had lost.

We cannot but regard with pain the self-confidence of some men who boast of being wedded to the principle of the Ryotwar system of Madras: men who, while parading the fact that it has reserved the largest portion of the produce of land for the Government, forget to add that when compared with the other land systems of the country it is the least productive. It seems almost incredible that any one in the possession of his right senses would venture to defend the principle of a system which is kept up by compulsory cultivation, and of which the very essence is Government advances and remission of assessment. What is there to boast of in a principle which secures to us the smallest amount of success with the greatest amount of sacrifice?

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under the Ryotwar system the land which is cultivated but does not produce is exempted from Government charge, and that it rests with the ryot to take up or relinquish the engagement at pleasure. This choice of liability has been styled, with what attempt at irony we know not, 'freedom of action;' the phrase may probably carry a hidden compliment to the system which admits it. But to call that *freedom of action*, which has only engendered a perilous amount of uncertainty in the fiscal department, and allowed the ryot a licence which is fatally capricious and suicidal, is hardly less ridiculous than to say of a man who had cut off his nose to spite his face, that he enjoyed a greater amount of freedom of action than those who shew a greater regard for their nasal organ.

As if the system was not essentially defective, a sudden increase of half a million of the land revenue drove Madras officers wild with a paroxysm of joy. The different causes which combined to produce this momentary relief were too deep for the comprehension of those who are too wise to doubt their convictions. Yet how they contrive to get over the matter of irrigation, how they manage to explain away the rise in price, the equitable reduction of assessment, and the first fruits of European capital and enterprise, it is impossible to surmise; but fortunately the glee-making did not endure long, and a sudden fall has again established the intrinsic worthlessness of the Ryotwar system. Whether it is safe to trust to a system so mischievously uncertain, as to admit of a fall in revenue of nearly 1,00,00,000 Rupees within two years, cannot long puzzle a mind uninfluenced by pet theories.

The amount wasted on the collectors of public revenue in Madras is said to be equal to the revenue it brings. A spiteful Bengal civilian considers it more than equal. Thirty seven thousand revenue collectors, if brave and honest men, could be drilled into a formidable army, but it seems that they are too well pleased with the judicial depredations which they have so long carried on with success to emulate the uncertain glories of war. Yet with this legion at our command concealed cultivation costs Government over half a million a year. It would, however, be unreasonable to expect any other result when needy informers and village headmen are the only checks on dishonest cultivators; when so much has to be trusted to their love of fair play, to their honesty, to their dislike of interference with private interests,

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and when advances and remissions must be treated as a part of the Ryotwary system.

The absence of that immediate and effective support which a private landlord can offer to labour, and the evils which attend isolated labor in a poor country have hopelessly ruined the cultivators of Madras. Beggars can help beggars only in perpetuating mendicity, while the hopes of a 'let off' which it is fancied Government can always afford, keep poverty free from the imputation of discontent against the State.

Annual remissions and annual advances, form a sort of patchwork which keeps up socialism in the 'benighted Presidency.' If a system, which has failed in Madras, which has failed in Bombay, and which has failed whenever it was put to a practical test, can yet honestly be said to rest on unassailable 'principle,' then we say that either the principle is too deep for human inquiry or impracticable with human means. It has been well remarked 'let a village go to ruin and it *ipso facto* becomes ryotwar,' if such be the normal condition of the socialistic system, let us undertake the labor of construction, despite the difficulties which may attend it.

Call it a system or the want of a system, the conclusions to which experience drives all reflecting minds do not inspire us with hopes of its sudden success: it is hostile to the accumulation of capital, to the growth of a middle class, and it also involves the evils of a government by agents. We trust, however, that the Torture-Commission has exposed both the principle and practice of a theory of land government which at once struggled to be a policy and a philanthropic scheme.

While first principles held undisturbed sway in Madras and portions of the Bombay Presidency, a system which discountenanced but did not repudiate the claims of capital was inaugurated in the North West Provinces of India. With the Ryotwar system we were trying the experiment of working out social amelioration by means of labor alone, and if possible, to effect a perpetual divorce between labor and capital; in the North-West we were endeavouring to ascertain the result of the operations of labor with as small a taint of capital as possible. Yet the dread of capital is the common feature of both the systems: and it is not too much to say that the alarm with which we view the progress of capital would alone prove how incapable we were to discuss imperial questions involving the fate of the landed classes of the country.

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The Village or the Community System which has obtained in Upper India, the Punjab and Scinde is the system under which a village is leased for a fixed term, and at a fixed rate to certain men who possess the rights of property in it. It was introduced into some parts of the North West in succession to the Bengal system, when we first fancied that we had obtained an insight into the evils which attended the Perpetual Settlement. The causes which led to the failure of the Community System were the division of land under joint liability of all the proprietors; the obstacles it threw in the way of capital; and the inherent impossibility of a scheme which aimed at the conversion, by means of labor alone, of needy cultivators of the soil into capitalists. The position of the small coparcenary proprietors was a perfect anomaly: unable to acquire capital under the pressure of a high assessment they had to seek it elsewhere, and in supplying their wants they disturbed the equilibrium which was essential to the existence of the 'community.' The frequent change of proprietors was cutting at the root of the very principle which was the safeguard of the 'brotherhood,' and yet the 'community' could not hold together without capital, and was not able to resist the danger to which it was subject from the interference of capitalists. Every outsider who gained admittance into the 'community' was a capitalist, and every addition to the number of such capitalists expedited the destruction of an institution which relied for safety on its successful expulsion of capital. Litigation was too expensive a means for seeking redress under a system so thoroughly patriarchal. The attempt to confine the sale and purchase of land among the copartners, who were equally poor, was for all purposes of utility simply an impossibility, and if it was enforced against the laws of property and the dictates of common sense, it reduced the value of land and the importance of the landholders.

We prohibit the sale of land to strangers because a free admission of any extraneous element into the system is opposed to the principle on which the 'Community' is founded. Thus the system, which stands so much in need of capital, and which cannot work with success unless land has a fair marketable value, is averse to the admission of the capitalists themselves. We have said elsewhere that dishonest alienation of land is to be disallowed on the broad principles of equity and justice, and we are also willing to declare that the right of pre-emption should exist in all village communities; but unless land is worth a

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certain, and fair amount in money, the possession of land cannot be any object with the influential classes of society.*

The community system might have been conceived in a spirit of well-meaning charity to the cultivators of the soil; by allowing them a share in the rent of the land it conferred on them a blessing which they did not enjoy elsewhere. But the great want of the 'community' was capital, and capital does not generally grow with the speed with which a land policy may be enunciated. The well being of the 'community', which depended so much on a free and judicious employment of capital, was unfortuately entrusted to a class of men, who had neither the means nor the intelligence which could meet the ordinary difficulties of a corporate existence. Village communities without capital or settled habits were the institutions of other days, and, in reviving them in a form but slightly altered from the original, we have been guilty of a piece of anachronism which has failed of success.

A system, which worked in harmony with a political organisation peculiar to itself, could not work under a regime so completely foreign as that which we introduced into the country. That native rulers should reconstruct a land-system which native rulers had originated, would perhaps be a commendable act, provided the times needed such obsolete machinery; but for us to resuscitate it when its necessity had passed away, and when new emergencies are arising which demand a very different treatment, is a culpable waste of time, labor and capital.

The community system belongs to that purely agricultural age which ceased to exercise a happy influence on society when commerce created new wants. 'The members of a compulsory partnership,' as Mr. Mead calls the small coparceners, cannot act in harmony when the motive for union induced by external danger does not exist. But we are glad to remark that, what the Torture Commission was to the Ryotwar system, the famine of 1860 was to the village system of the North West; it put the 'community' to the test of one disturbing influence not naturally irresistible, and the system failed miserably. Extravagance to-day and want to-morrow, ruined the proprietors who so greatly needed capital and who produced it so slowly. [a]

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* "Lands do not belong to any particular family they are accustomed by sale to pass to strangers, often even to the very lowest people, because lands are not protected by the laws like guardianships." Cicero, for L. C. Balbus.

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The increase of wealth outside the 'community,' and the increase of poverty within it disturb the unnatural relations which exist between the labor of the 'community' and the wealth of the outsiders. As commerce advances the 'community' succumbs to the pressure of the monied classes, and eventually disappears under their influence. How capitalists succeeded in acquiring property in communities so jealously guarded against foreign intrusion it may not be necessary to investigate here, but the melancholy fact of such intrusion is patent even to the adyocates of the system which is crumbling under the revolution. Mr. Campbell has not failed to remark that the pure Zemindaree 'communities' are disappearing by degrees, and the cause of their destruction is what a traditionist philosopher called 'the ever vitiating influence of capital.' It would be worth our while to inquire, whether it is necessary to resist the progress of events merely to support the decaying members of a useless fabric. If capital has in certain places permitted the 'communities' to preserve the appearance if not the essentials of wealth, the capitalists have acquired such hold over the land of the 'communities' as to extort the best part of the produce of their labor and by the application of a gentle pressure the original proprietors have been reduced to their natural position of simple cultivators.

We shall not refrain here from testing the facts which lead Mr. Campbell to hold up the Punjab system as 'a model and example for other parts of the country.' In the Punjab the community system was not only favorably received by the people, but the circumstances under which it had the best chance of succeeding were not wanting. The local government was averse to the destruction of the 'communities,' the judicial officers were called upon to watch the sale of land to outsiders, and to oppose the intrusion of capitalists among the cultivating proprietors by prohibiting or discountenancing even freewill transfers of landed property. Every circumstance conspired to uphold the corporate character of the community, and yet what has been the fate of our injudicious interference with private rights? Assessments are being incessantly revised, remissions have been freely granted, *jumma* has been permanently reduced over two fifths of the country, and the village communities are uniformly poor and helpless.*

* We regret that we were favoured with a copy of Mr Cust's Tenant-code too late to make any other use of this valuable paper beyond extracting from it matter for foot-notes. 'I do not think,' says Mr. Cust, 'that much mis-

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If they have apparently lost little by the direct transfer of land, they have not been able to keep themselves clear of the ledgers and bonds of the capitalists. Whether any partiality for these 'communities' can be defended by the statement of favourable facts, is no longer a subject for discussion: and if they are to be maintained at the cost of those who are concerned in their success, the blame of future failures should be laid on the shoulders of those who still advocate their cause.

Between property and useful property there is a distinction which has seldom been recognised by those who have legislated for the land of this country. The property created by means of the North West system was different from the property springing out of the Bengal land system in the one important particular, which rules the choice of wise men between one description of property and another. In 1793 the Marquis of Cornwallis fixed in perpetuity the annual rent payable by the land owners of Bengal. The nature or extent of the inquiry which led to the discovery of the proprietor of any individual estate in that province it is impossible at this distance of time to ascertain, but that even in those days the newly elected proprietors were not considered identical with the real owners of the soil, may be inferred from the fact of their being entitled 'hereditary superintendents of land.' They were subsequently called 'manufactured proprietors'; but considering that the creation of useful property in the soil was our object, the right of property whether manufactured or otherwise created it is not necessary to investigate here.

In return for the perpetual fixity of Government demand it was resolved that if the revenue was not duly paid, the estate was to be sold, and the Collector gave a title to the new owner without giving him possession. It was also ruled in favor of the landlord, after twenty-four years experience of the working of the new system, that he should be duly invested with the power of distraint for arrears due from the tenants, and to this necessary authority was allied the questionable privilege of enforcing the attendance of the tenant in the manorial court.

The settlement of Bengal was not fixed in perpetuity after so searching and complete an enquiry as a measure of such impor-

chief has been done yet, the settlements of Punjab proper are but just completed, and are for ten years only; but those for Cis Sutlej states and Trans-Sutlej states are for thirty years. Moreover, I fear that the average pressure of our settlement is so heavy, that there is not as yet much room for rent. We have granted reductions of lakhs of rupees, but the Price Current has fallen faster than the Revenue.'

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tance deserved, and while our attention was absorbed in the creation of new and valuable property in land we unconsciously over-rode other rights which existed in it from time immemorial. Subordinate rights might have been bought out, and subordinate servants might have been offered relief, but their summary sacrifice has proved prejudicial to the cause of society. Whether subordinate rights ought to have been maintained or not is a question perfectly independent of the justice of the claim of the subordinate tenants to compensation for property of which they were forcibly deprived. In withholding from men their just rights, we did not trouble ourselves with discussing the necessity for offering some relief to those who suffered by a public act. This was the full extent of the injustice committed by those who introduced the Perpetual Settlement; but the official classes, in duty bound to uphold the traditionary policy of their masters, condemn the measure, as having entailed on the government a grievous loss of public revenue. 'Such a loss of revenue,' remarks Miss Martineau commenting on the Perpetual Settlement, 'was never suffered by any government;' and this sacrifice was made, she observes, 'without any beneficial effect on the public interest as far as it is perceptible to common observation.' We doubt not that it was under some such conviction that Mr. Halliday, who seems to have been sensitively alive to the defects of the Permanent Settlement, 'proposed as a panacea for the evils which were destroying the 'rural societies' to purchase of Zemindars lands offered for sale, and by degrees to redeem the country from the curse of a fixed tenure. He was, however, candid enough to express his regret that this scheme of enfranchisement would not be carried out with the rapidity he so much desired, as land was 'but rarely' sold for arrears of revenue. A statesman without any favorite theory to uphold would have inferred from Mr. Halliday's ill-judged admission that the fixity of tenure had at all events placed the land of the country in the hands of those who could utilize it, and had removed it beyond the depressing influences which characterize the systems which prevail elsewhere.

We are also too apt to forget that the objects which we aimed at by the adoption of a Permanent Settlement have been attained without the failures which usually attend projects of land reform. We endeavoured to create a valuable and certain revenue at a time of need and perplexity, and we have succeeded in our attempt. If we have failed in other minor particulars to

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which our attention was subsequently drawn, let us congratulate ourselves that on the whole we have obtained an amount of success which has not attended similar experiments in the other parts of the country. Fixity of tenures led to an increase of cultivation, created a spirit of enterprise in the owners of the soil, conduced materially to the growth of capital and of a middle class, and has rendered the relation of landlords and tenants mutually beneficial. Let us not forget that it has also to a very great extent obviated the unpleasant consequences of Government interference with individual rights. If we have in ignorance destroyed certain subordinate rights of questionable value, the measure has still been attended by a preponderance of good which cannot be overlooked; and let us now console ourselves with this universal truth that no scheme of human conception can ever be so thoroughly good as to be wholly free from evil.

Bengal owes its material prosperity to the Permanent Settlement which by fixing in perpetuity the Government *jumma* has rendered land a valuable possession. Periodical settlements were undoubtedly useful as preparatory measures for that advanced system which is embodied in the Bengal settlement. Periodical inquiry into the character of the different tenures and the quality of the soil has led to that intimate acquaintance with the productive capacity of land and the utility of subordinate tenures which will lead to the exercise of an equitable discretion in adjusting the claim of the different classes of proprietors. If fixed assessment for a term of years is preferable to an uncertain tenure, the settlement once for all of Government demand is preferable to a fixed demand for a limited term. The only part of the country where land brings prices equal to those in England is the province where land is held under a Permanent Settlement.' 'In England,' says a writer in the *Times*, 'there is many 'an acre of land that would not be worth a pound under a limi- 'ted tenure which is worth thirty or forty pounds as unconditional 'property.'

Yet Bengal does not possess the monopoly of rich soil, the fruitful Doabs are populated by a hardy race who are accustomed to a life of labor for which the natives of Bengal are unfit. In the North-West a steady though slow rise in the price of grain to five rupees per maund caused the loss of thousands of lives, while in Bengal a sudden rise in the price of rice from fourteen annas to four rupees and four annas per maund simultaneously

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raised the price of labor! Let us compare the income tax receipts of Bengal with those of the sister Presidencies; let us also mark the proportion of direct to indirect taxation in the several provinces of the empire, and we shall have two important facts before us, which could only be explained by reference to the systems of land tenures under which the soil is owned in the different Presidencies. In Bengal, the proportion of direct to indirect taxation is as four is to nine, and it is also there that the price of labor is steadily and rapidly on the increase; no argument ever so elaborate can so satisfactorily establish the advantage of fixed over uncertain assessment of Government demand as the results which we have just cited.

It cannot be denied that enterprise and capital cannot benefit land unless property in land is full and free. Some of the richest estates of Bengal have been sold and resold by Government, owing partly to the strictness in the liquidation of land revenue, and partly to the action of the Civil Courts; but land has gradually passed into the hands of men who have accumulated capital and who can happily resist both the calamities of season and the depredations of the law courts.

A great revolution has silently swept over the courts, and society has reaped from it advantages which it would be easier to repudiate than to disprove. On the other hand, had Government arbitrarily interfered with the transfer of property from a prodigal to a thrifty class of men, the laws of nature would have asserted themselves and human enactments would have succumbed under a force it was impossible to resist. But the action of capital being free, and labor allowed to justify its rights to a share in the general prosperity, the relation between capital and labor was regulated by those laws which render them mutually necessary and their combined action beneficial to the community at large. Under the village system of the Provinces, an attempt to adjust the claims of labor and capital could only end in the sacrifice of the system itself; restrictions were therefore imposed and the system was saved at the cost of national progress.

The Perpetual System has developed the tendency which in every prosperous country leads to the destruction of unremunerative cottier farms and to the formation of wealth-producing estates. Remissions of public revenue are scarce in Bengal; Government revenue is realised with ease and punctuality and the capital of the landlord has materially weakened the chances of a sudden collapse of the system under ordinarily adverse influences. Within

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the last four years the average amount of revenue realised from land in Bengal has exceeded ninety-six per cent of the demand; as private income increases with cultivation and rent weighs lightly on land we shall hear less of defaulting landlords and more of flourishing estates. The ryot himself feels the coming change: if he is not better off than he should be, we feel no hesitation in stating that he is better fed, better clothed and better housed than the same class of men under the systems which boast of 'first principles', and enmity to so-called conventionalism.* The philanthropists who regret that the land tax cannot be raised so as to afford means for the reduction of indirect taxation seem either to mistake the nature of wealth or misunderstand the nature of the change indicated by an increase of indirect taxation.

Commerce and the arts of life advance at a pace with which the progress of agriculture cannot compete, and it is therefore by no means an easy task to determine the proportions according to which manufacture and agriculture should divide the taxes of the country. Even those who have but cursorily dwelt on the subject admit that any continuous though gradual increase of land tax would soon render the burden on land inequitable, and to our mind it is an undeniable position that the system which would lead to the increase of capital among the landed gentry would also enable the country to bear with elasticity an increase of indirect taxation and to add to the resources of the tax-paying multitude.

With such facts before us we would strongly recommend the adoption of the Permanent Settlement throughout the country. Wherever we have completed a correct scientific survey of the culturable land, and land tenures have been thoroughly investigated and the results placed on record; wherever the periodical settlement has worked with success, and the country bears the signs of wealth, the permanent limits of Government demand should be at once offered to the landholders as the main condition of the newly proposed settlement. If it be necessary to proceed with greater caution, let us restrict the introduction of the Perpetual Settlement to the naturally favoured tracts of the country, and where a well grounded prosperity has prepared the land for the change. Sir Robert Montgomery who has styled the

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* 'The prosperity of the rural population,' remarks a native journal, 'is evidenced in their better clothing, a considerable improvement in their physical appearance, and a corresponding change for the better in the condition of their cows and oxen.'

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Permanent Settlement 'a blessing,' considered the landholders of Cawnpore ready to accept a permanent settlement at any temporary sacrifice; * and unless we deceive ourselves this feeling in favor of the change is not confined to one district; wherever it is publicly offered by the Government as a policy which has only to be accepted to become the law of the land, it will be welcomed by the people as an unqualified boon.

Light assessment which has been so recently acknowledged as essential to the success of land settlement, will expedite as well as justify the necessity of the change we so heartily advocate. Government has ruled that the assessment under the new settlements should be reduced by from sixty-six to fifty per cent, and the order was received with universal commendation. It is hoped that such a reduction will place a valuable profit within the reach of the cultivator, and that the savings of a few years will prepare him for the change which we propose to carry out.

With the Perpetual Settlement in force we shall have to take leave of protective legislation for land, and, having created a valuable property for the landlords, we shall be perfectly willing to leave the 'communities' to fight their own battle. As rent weighs lightly on land, and indirect taxation brings the native commercial classes under the influence of the Financial Department, the landed interest will enjoy the advantages of a reform which will not disturb the prosperity of the classes who have hitherto enjoyed an unfair immunity. And thus we shall realise what Miss Martineau in her dreamy 'suggestions' calls 'the reduction and re-arrangement of new and increased taxation to enable us to reduce the tax on land.'

In the Punjab as well as in the North-West there are certain tracts of land so fortunately situated in every respect that even the most timid would not scruple to introduce there the Bengal system of land settlement. One of the most important and certainly the most immediate result of the introduction of the Permanent Settlement will be, that new lands will contribute to the public exchequer and thereby lighten the burden on the old. As agricultural wealth steadily increases and capital accumulates in the hands of the landowners, we shall have less and less to fear from those terrible visitations which press so fearfully on the lives and means of the poor. In the Madras Presidency, where the cultivators are too poor to incur the risks which attend even an

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* We quote at second hand.

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ordinarily long lease, we should as a preliminary measure reduce the 'assessment,' and by short periodical settlements prepare them for the perpetual fixity of Government demand.

As the temporary settlements lead to the permanent so does the permanent settlement prepare the way for a higher blessing. Under the native rule the expenses of the State were defrayed from the receipts of land tax, and the other sources of income, if any, were only supplemental. And even now, after a century of British rule, nearly half of the imperial revenue is derived directly from the soil, and the landed interest bears the weight of public taxation; with the progress of commerce, however, we trust the tax-burden will be equitably divided among the different classes who owe their prosperity to public security. The representatives of commercial and professional industry should each bear its own liability and thereby lighten the average weight borne by the various classes, who are all equally indebted for protection to the Government of the country. Any marked inequality in the distribution of the aggregate weight of public taxation is likely to affect public credit, and the inequality in favour of one only increases the danger of injustice towards the rest. The land system which commenced with a periodical and has passed through a permanent settlement, must end with the redemption of land revenue. We must facilitate the formation of profitably large estates without any of the harrassing conditions which short-sighted land legislation is likely to impose on them.

The author of the pamphlet entitled 'the Land Revenue of India' while advocating the perpetuation of the land tax as it now stands, remarks on its origin as follows: 'so the tax of armed 'aid levied on the land was long paid in kind, but as man became 'valuable as a wealth-producing rather than a fighting animal, 'the tendency to commute such service for a money payment 'gathered strength till such commutation was the right and 'ordinary custom of all. Thus originated the land tax.' The writer who makes distinction between a fighting animal and 'a wealth-producing animal' might have with advantage extended his observations to the increasing importance of trade and growing facilities for exchange, and also distinguished between the ordinary wealth-producing and the *commercial* wealth-producing animal, who is also the champion of national progress and social reform.

As a nation advances in commerce and the arts of life its domestic economy progresses towards artificial perfection, and

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as every obstinate resolution to divide the burden of the public tax equally between the fighting animal and the agricultural animal would eventually lead to injustice on the former, so any attempt to divide the tax-burden between the agricultural and the commercial animal, unless in proportion to their respective abilities, would lead to the decline of agriculture, and so also in the long run to a falling off in the raw materials which supply the staples for commerce. We must therefore relieve the agricultural animal of a portion of his burden and place it on the shoulders of his consort whose vigour is on the increase and whose powers of endurance have improved at a pace unknown to the comparatively weak vitality of agriculture.

We must therefore allow capitalists who own land to redeem it from State dues, and thus to stimulate the progress of agriculture and the increase of agricultural capital.

It is not unlikely, as has been freely prophesied, that at first the power of redemption will not be used to any remarkable extent; but there cannot be a doubt that, as peace and intimate commercial alliance with Europe brings native society into that tranquil condition which is so propitious to prosperity, those who will have amassed wealth will not be deterred from availing themselves of a power to confer a lasting good on themselves and their country. Since we are not necessitated to discuss the intrinsic merit of the measure, and the objection to it rests on the grounds of expediency; let us but concede the privilege of redemption in favor of those who would profit by it, and we flatter ourselves that it will not be long before the moneyed classes evince an anxiety to relieve themselves of an impediment which seriously hinders the growth of capital. Of rent-free estates the author of the pamphlet on 'Land Revenue' remarks that they are not flourishing, and that they are not a bit better than the 'liable' estates; but he admits that they bring to their owners 'full three times as much.' We must confess that it is a satisfactory feature of the policy which created rent-free estates that the properties they brought into existence have been productive of some good to certain classes of society if not to the government itself.

The success, which, sooner or later, must attend the redemption of land revenue would be rendered intelligible to those who have an interest in the success of its operations by a study of the most important maxim of land economy: that the more property in land is burdened with restrictive conditions the more we

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weaken its productive power. Let land be redeemed for twenty years' purchase, or at any other fair valuation which the Government after inquiry may prefer; let every landlord who redeems his estates receive a clear and incontestable title of proprietorship. The rules promulgated by the Government of the late Lord Canning are perfectly feasible and the conditions generally are so far equitable that a Committee of the different Local Councils may revise them if such a step be calculated to inspire the public with greater confidence in the measure. We have attempted to explain only the leading principles of the reform which is to render our system of land-government as perfect as circumstances admit of, and if there be any difficulties in the details, they are neither so great in number nor so formidable in character as to afford any cause for apprehension.

Of estates paying a *jumma* of a thousand rupees per annum or under, we might allow the immediate redemption; the rest might be redeemed by fifths or tenths as may be deemed necessary. But in all matters relating to the details of the redemption bill, the committees of the Provincial or the Presidency Council ought to be the best judges.

Every landlord who redeems his land gives a new pledge of loyalty to the government of the country; he stakes his all with the government which has given him the power to redeem, while he adds materially to the existing taxable resources of the country which have hitherto had so little aid from indirect taxation. On both these points the author of the 'Land Revenue' offers remarks which deserve a passing notice. On the subject of loyalty, he is of opinion that those who bought land could not be more loyal than those who bought Company's paper-money. But as regards wealth, number and importance there are no common grounds of comparison between landlords and 'paper-money' holders. Furthermore, an imperial guarantee would replace 'paper-money,' but could it compel a foreign power to give up lands belonging to private individuals in India? The writer also observes that any further increase of indirect taxation would fail in India; but it may be just as well to remind one whose attention is completely absorbed by a hobby, that the India of 1860 is not the India of 1850, nor is the policy of Her Majesty's government identical with the 'tradition' which studied to complicate land tenures by the introduction of injudicious rights, and to simplify public taxation by confining the demand chiefly to land. 'Because,' also remarks the writer with

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evident regret, 'when a man nas redeemed his land his ability to 'spend would nowise be increased, so that indireet taxation would 'not be stimulated by the drain of capital'. To this piece of wisdom we would observe in reply that, few men would venture to lay out their last farthing on the redemption of land and, that even if men were rash enough to do so, the savings of ten short years would make up for a drain which cannot recur. But we should like to ask the writer of the 'Land Revenue' question, if the contingency to which he alludes with pain if not alarm, is at all consistent with his propheey that the redemption of land revenue would not be popular with the natives?

The general principles, on which we support a Perpetual Settlement apply with ten-fold force to the redemption of revenue, and in connexion with this subject we beg to make a few observations on the sale of the Fee-simple of Waste Land.

A Secretary of State may be privileged to dream according to his fancies, but neither the dream nor the fancies can alter or improve the following stubborn facts which have been placed at our disposal; that not one-fifth of the cultivable land of India is cultivated; that Madras abounds in wastes on 'first principles;' that Bombay and the North West Provinces fare but slightly better; that the Punjab can offer to enterprise unreclaimed land of unrivalled fertility, and that millions of acres of the richest soil in the world which would enrich British Burmah are still neglected. These are facts which cannot be contradicted despite all the ominous auguries of men in power.

The rules published by the Government of Lord Canning on the subject of Waste Land have been accepted generally as favorable to enterprise, and to them may be added this provision, that the valuation of land be left to the local Government of each Presidency.* We agree with the late Lord Canning that the fewer the restrictions we impose on the sale of land and the more we increase the facilities for land seekers to purchase Government wastes the greater the extent to which the measure will operate beneficially. We shall only recommend here that the

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* We have since read and approve of the reply of the Government to the Calcutta Land Association that 'It certainly was not the policy of the resolu-'tion absolutely to confer the ownership of the most desirable waste lands, 'at a price very much below what the public are willing to pay for them, on 'those who from their personal acquaintance or connection with the locality 'may have the best opportunity of obtaining information regarding them, 'and thus of being first in the field with their applications.'

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proper valuation of land be carefully attended to, otherwise speculation will restrict the effects of a reform which is intended to benefit the agricultural interest of a large empire. But we should also be on our guard against injudicious interference with the rights of individuals: we should not restrain by any condition the purchaser's action or guide his judgment in dealing with his property. The owner of waste land is to be treated like the owner of cultivated fields; he must consult his own interest both as regards the extent or the means of cultivation; if it may seem to his advantage that the land should continue an unreclaimed waste it is not for Government to induce him to abandon his resolve; whether for good or for evil his property in land should be as unconditionally his as any other form of property; and if it be his choice to be content to allow his capital to waste or stagnate while progress is working miracles of prosperity around him, his choice concerns none but himself.

The writer of the 'Land Revenue' regards with dread the unconditional sale of waste land, because even when penalty is attached to neglecting cultivation the land is allowed to lie fallow; in short it seems to us that the writer would rather that the land was locked up, as it has been for more than a century, and wait for the good times when the 'community system' and the right of pre-emption shall have come to its rescue. 'Speculators,' he adds, 'would invest in land, till the most favorable 'frontage, and then wait patiently till the price rose so high as 'to tempt them to sell.' Considering the extent of waste land which is available, the foolish 'speculator,' must wait 'patiently' for a very long time to profit by his speculation.*

It is not enough, however, that waste land should be sold and cultivated land be redeemed, but we must also provide for the most profitable disposal of the income which the State may derive from these two sources. Public journals have long declared their views on the subject, and we have resolved after some reflection, to support the scheme which public opinion has so unhesitatingly recommended. The proceeds of the sale and redemption of Government land can only be honestly employed in

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* Sir Charles Wood in his despatch on the subject overlooks facts and draws inferences which are necessarily false. It is painful to enlighten the Secretary of State for India on matters so well known, and on which it is so important that Government should arrive at some definite conclusion. That there are waste lands in India of which Government is the sole proprietor, and that European capitalists are not the scourge of the country are facts which we would not attempt to prove, even if it were to edify a Right Honorable Secretary of State.

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extinguishing Government debts and in constructing works of public utility. The details of the scheme must be left to imperial legislature, but we may be permitted to offer a few words in defence of its general principles.

The capital represented by the land at twenty years' purchase amounts to about four hundred million pounds sterling, while the Gov ernment debts and the Railway guarantees do not amount to one hundred and fifty millions. The savings of the interest on the public debts would not be a greater blessing to society than the indirect influence of land-redemption in alluring capital to the labor market; yet the amount of interest saved by the extinction of the public debts would go some way towards reducing the chances of a new loan, and even if the necessity for one did arise a solvent exchequer would afford no ordinary facilities for future loan operations.

To allege that the temporary clearing off of the Government debts is not likely to confer any lasting benefit on the public is simply the affectation of wisdom. But even if such were the truth, to put off a certain good for a remote contingent evil bespeaks an amount of sensitiveness which cannot be productive of good to the public. The advocates of the old school have even gone so far as to assert, that not only does a temporary liquidation of debt do no good, but that freedom from debt cannot but be ephemeral; it is impossible, they say, so to reduce the amount of public debts as that they shall not assume their original bulk before long; it would have been more satisfactory if the advocates of public indebtedness could prove that the increase of public debt was the unavoidable consequence of its decrease, and that its decrease is only the first step towards the evil we hope to avoid.

But the lovers of paradox avoid the test of facts and rest contented with declaring magisterially what they consider a political aphorism. We do not mean to deny that public debts have increased after a temporary clearance, but neither can our antagonists deny that public debts have increased without having experienced any previous relief; we are not unconscious of the dangers of the position where public receipts decline and public disbursements increase; but a decrease of income by the extinction of liability is no decrease at all, while it is an undeniable position that whatever honestly facilitates the contraction of new debts places at our disposal a power by which we may meet the wants of any ordinary exigency without danger, if not with ease.

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If a portion of the national debt can be wiped off by the sale of a portion of the public land, by attempting to retain both land and debt we only incur the liabilities of public trust. Again, if the public are willing to raise a decreasing debt to what they may regard as the standard amount, they are welcome to exercise their judgment in the matter and choose the situation best adapted to their taste and ability. When you pay off your debts, we are told, you are unconsciously getting through your capital; to this judgment we cannot give assent, the resources of a Government are the resources of its people; if it be true that in getting rid of public debts the Government is unconsciously going through its capital, is it less true that the periodical payment of interest on these debts is also a slow process of getting through an increase which would otherwise add to the national capital?

That a full exchequer leads to war, is another aphorism replete with 'traditionary' wisdom. We do not, however, propose to sell land merely to fill the public coffers, or when we have filled them to empty them by running headlong into war; on the contrary, we propose that the imperial government should immediately appropriate the extraordinary income to the use of the State. Indeed, we cannot bring ourselves to believe that any Government, inspired with British good sense, can be so wantonly prodigal as to indulge in war merely because it has the means to prosecute it. Let us suppose, on the other hand, that we were driven to a war against both will and conviction when we had not the means to withstand the drain consequent on it, would it not entail on us the necessity of new loans? and if so, is it at all times an easy matter to borrow with an empty exchequer and from an impoverished people.

It has been proposed that the proceeds of the sale of waste land should be exclusively applied to the construction of public works. To assert that we thereby exchange permanent sources of revenue for works of utility is nothing less than a fact, and in a qualified form would not be wanting in wisdom. Waste lands are at present not a source of income, and may therefore be regarded in the light of so much unemployed capital. That public works would increase the welfare of the people before they would add to public revenue is by no means an objection to the construction of public works; to some extent the savings or income of every individual subject may be reckoned as public property, and for all practical purposes under a constitutional

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Government the identity is perfect. To regard with unbecoming jealousy the construction of public works for no reason more cogent than that they have a tendency to raise private income, and yet to acknowledge the paramount necessity of such works is keep to the public mind in an undesirable state of indecision. It would seem under the circumstances that Government do not object to the construction of public works provided their costs are not charged against the imperial revenue, and provided also Government be entitled to their full share in the increased rent which such public works are likely to create.

That the Government of this country is peculiarly situated as regards public works, and that this peculiarity is solely due to its assumption of the duties of universal landlord, are facts. But the admission only proves that the injudicious competition of Government with private enterprise, has driven the latter out of the field at a loss to the public and the Government with whom it would be a hopeless struggle to compete; let us, however, in justice to ourselves refrain from charging the unofficial public with apathy and indifference, when what we require of them is a fruitless sacrifice. If the construction of public works is entrusted to the Government as universal landlord, then they cannot renounce the duty without also renouncing the privileges of the position. If the relation of Government to public works be anomalous, it is only the result of an anomaly which was perpetrated when Government assumed the duties of universal landlord.

Before however we concede the right of redemption of revenue and extend the Perpetual Settlement to the 'Provinces,' unless we are anxious to revive the errors of the past, let us complete an accurate registration of tenures and a correct survey of each man's holding.* Lasting tranquillity in Bengal can only be secured by reducing all matters relating to land to a condition of certainty which would leave no room for useless discussion. Indeed, if the rent struggles are not to be perpetuated, if the friendly relation between landlord and tenant is not to be disturbed, and if litigation for land is to cease to be a matter of pure chance, we must have a record of right and a survey of each estate.

When the multitude who connect their destiny so intimately with land, shall have been fully impressed with the salutary

* What Mr. Cust calls 'a Domes-day book in which every right is more or less correctly recorded.'

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conviction that their relation to one another and their relation to the soil have been so clearly determined that it is no longer safe to indulge in law suits with hopes of harassing the judge and the defendants, the law courts will afford relief without becoming partisans of either one party or the other. We must no longer grant judicial decrees for the possession of fictitious property and of property which it is almost impossible to identify. If Bengal has been saved from the rough manipulation of the revenue collectors, it has been ridden over rough shod by the civil judges who have laboured so assiduously to confound rights and prolong litigation. Some of these evils to which the judicial officers have been led in their mistaken zeal for redressing fancied evil have passed all remedy, but interests still unimpaired may be protected by the adoption of the means which we have cursorily suggested.

We should not be so short-sighted as to withhold the means for restoring peace to one of the richest provinces of the empire under the conviction that our connexion with the land has been severed by the Permanent Settlement, and that by the redemption of public revenue it would still further be estranged. Such a policy, if it ever was earnestly conceived, betrays a want of power to distinguish between the duties of a government, and the duties inseparable from the exploded system of universal landlordism. We do not for a moment doubt that land will gradually pass out of the immediate control of Government; but are the people to have no part in governing themselves, in preserving the public peace, or in providing for public safety? If not, then let us abandon the attempt to amalgamate two distinct duties in the vain hope of destroying the evil which is common to both. Whether as governors of the country or universal landlord, public peace is our first and most important charge and public disorder the danger of both the government and the public.

Thus, we advocate the redemption of land revenue wherever the Perpetual Settlement has obtained, and the Permanent whenever the periodical settlement has worked with success; we would further propose that Government should not permit any land to be held *immediately* by any tenure less certain than a tenancy of fifteen years, and with the aid of a light assessment it will not be necessary to repeat the experiment before the country is prepared for the only system of land government which has worked with success.

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Having discussed thus far the subject of land tenures we shall now turn our attention to the tenants themselves. For all practical purposes it will not be necessary for us to take cognisance of any other description of tenants beside the two which differ from each other on points of material importance. We shall treat of tenants with rights of property and of tenants without the rights of property: of land proprietors on one hand and land cultivators on the other: of Zemindars, Talookdars and other great proprietors who are said to lord it over every thing and the 'injured innocents,' the ryots who are being lorded over.

Whatever may be the origin of our dread of capital, the fact is pretty clear that we do not regard with any favor the landed proprietors who are almost identical with the capitalists of this country. It seems to us that having once treated them with undue favor, we are anxious to atone for past errors by an undue distrust of their present motives and conduct. Having created them lords of the soil it were a matter of political conscience not to revive any discussion on the equity of their proprietory claim. It would have been consistent with justice to have recognised their importance in the social economy—chiefly in their relation to land—and watched the results of the system we had so hastily inaugurated. The course adopted by us was very different indeed; overcome by the clamour of those who had been unjustly sacrificed to hasty legislation, we proceeded to remedy the evil by declaring a crusade against both the ryot who had been injured and the landlord who had reaped the advantages of the injury; and we must confess that the war was prosecuted with a vigor which threatened to end with success. We were of a sudden troubled with a consciousness of the rights of the subordinate tenants, and were resolved therefore to destroy the superior rights which had become so distasteful to the injured cultivators. For the last fifty years we have generously exerted ourselves in redressing imaginary evils by the sacrifice of substantial good. We have uprooted the gentry of the soil and hoped thereby to avenge the cause of the distressed cultivators; we have persecuted the landlord to avenge the calamities we had heaped on the peasantry. In fact our policy has been that dangerous worship of expediency which in a slightly qualified form would favor the cause of every needy plunderer. We have even gone so far as to object to the very wealth of the landed proprietors; that their profits were large, was in itself considered a grievance; and as if Government had discharged all its public duties to perfection, we reproached the

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landlord with not fulfilling the just expectations of the State. It would have been fair if we had extended our enquiry beyond the creatures of the Perpetual Settlement to those of the land systems of the other provinces, and endeavoured to ascertain the extent to which they had fulfilled public expectations.

If Socialism is in reality to be the basis of our domestic policy, let property be interdicted without any exception or condition at all; for, do what we may, it is impossible to effect a compromise between large property and no-property, and to elect in favor of small property as the golden mean. The policy of compromise has failed hopelessly; we have ruined the owners of useful property, without raising the serf, who had nothing but his labor to depend upon, to the status of a landed proprietor. The private wealth which we melted down with so much care has not reappeared, as our statesmen flattered themselves it would; but who can deny that its destruction has neither improved the social condition of the oppressed ryot, nor increased the revenue of Government? We have destroyed that class of men in whose enterprise was our best guarantee for the progress of society, and to fill up their places we have raised a large body of avaricious speculators with but a temporary interest in the land of the country, and we have also constructed that cumbrous official machinery, which seems to us to have been specially contrived for the absorption of Government revenue.

Madras, whence nobles and capitalists have alike disappeared, presents a spectacle for which even the most devoted advocate of socialism was not prepared. Lord Harris admits all that can be said against the Ryotwary system when he declares, that innumerable small holdings must necessitate poverty and social degradation. Even in his zeal for a favourite theory his lordship was struck with the fact that 'active measures of improvement on an 'extensive scale, did not exist in Madras'. It would have been too much for his lordship to confess that in the Madras Presidency we had realised the very ideal of our land policy, but that such was the case may be safely inferred from the fact that the Ryotwary cultivators have not the means to incur, with any chance of success, the risks and liabilities of an ordinarily long lease. With all the influence of a powerful Government arrayed against him, with social prejudices to combat, and with the suspicious attention of the judiciary fixed upon him the capitalist abided his time and successfully asserted his right against an opposition which was directed not more against

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him, than against the laws of supply and demand. As it was impossible for him to endure the burden of 'first principles' he left Madras to its fate, but into the 'community system' of the North West Provinces, where property of a kind does exist, he has made his way despite legislative restrictions, and the terrors of socialism. The influence of capital endures longer than the influence of labor, and, even in a mutually destructive struggle, capital has to some extent the advantage over its antagonist. The capitalist can no more confound his functions with those of the laborer, than the laborer dispense with the aid of the capitalist; and when property in land gravitates towards capital, whatever ignorance may say to the contrary, it is only the natural process by which capital acquires that control over labour which will result in the welfare of both. To view a course of progressive action with alarm is certain proof of the want of capacity to distinguish between a revolution which leads to reform and that which ends in disorganization. A surgical operation may be painful without being necessarily fatal.

In certain parts of India the absence of capital has led to consequences, which only demonstrate the folly of excluding it from a society purely agricultural; while its necessity has never been so clearly or strongly demonstrated by any other fact, as that the destruction of men of property, who possessed the confidence and respect of the people, has brought into existence men who started in life as speculators and have achieved wealth and a so-called position without influence or popularity. In Ireland even agrarian atrocities have not disturbed in their possession of land capitalists who are, even now, the abomination of the most careless peasantry in the world. Capitalists have no doubt tried to make the most of their opportunities, and if only the ryots had not been too helpless to propose terms, the remuneration of capital would have been less unreasonable, while labor would have had more than merely the leavings of capital to content itself with; as matters now stand, capital has had every thing much in its own way, but it is impossible to believe that it will long domineer as it has and treat the claim of labor with lordly disdain. Under any circumstances, let us be fair in our treatment of important interests, and let us not carry our opposition to capital too far in our zeal to restore the lost equilibrium. If in India landlords have mistaken their interest, they have followed the unfortunate example of the Government of the country with perhaps this immaterial difference, that while the Government finds complete justification of its conduct in its laws

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and regulations, the landlords extort all they can without acknowledging the necessity of any justification at all.*

It certainly cannot be considered dealing fairly with the interests of the landlord to treasure up in our minds his oppression of his tenants, and to neglect the importance of his wealth to the country. We all admit that even the speculators themselves have done all they could to keep up cultivation. The deficiency of farming capital has arrested the prosperity of the 'Provinces,' while the repulsion of capital from land in Madras has reduced that Presidency to hopeless beggary. Advances are preferred to that natural support which capital would freely afford to labor, but for the meddling spirit which keeps them asunder. So strongly has the necessity of this union declared itself that some of our best fiscal officers have proposed to lease the land of lazy communities to capitalists who may possess the means of improving it. If capital is to allure wealth out of the ground; if capital is to increase the demand for labor, and if the country is to look to capital for its most effective means of advancing material prosperity, let us treat with some consideration men who are armed with this power, who, while endeavouring to further their own interests, also benefit the interests of society.

Though the principles which we now advocate have been accepted in Europe as the best guide to substantial and permanent prosperity in India, we have struggled to inflict on society some of the choice theories borrowed from the school of socialism, and have persisted in our attempts to reduce to one dead level the wealthy classes of the country.† But the signs of

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* Mr. Ruskin would undoubtedly observe here that the landlord ought to 'die' rather than oppress the ryot, because 'rats, or any other animals support 'themselves by laws of demand and supply and the distinction of humanity 'is to live by those of Right.' If Mr. Ruskin could only convince the landlord that it was for his advantage that he should prefer death to oppression, we doubt not the landlord would gladly abide by Mr. Ruskin's 'Laws of Right'. But in the meanwhile selfish interests interfere and disturb the righteous state of mind to which Mr. Ruskin's philosophy might otherwise bring the landlord.

† The 'Flaneur' who gives us his impressions of 'Ten Years of Imperialism in France,' adds to our conviction that the French have not as yet been able to account for their prosperity under Napoleon the Third: 'The principle,' says the Flaneur, 'that it is the duty of the State to interfere 'in the relations between capital and labour in favor of the latter as the weaker 'of the two, was not only avowed by the Government of 1848, but acted upon, 'although, as every one knows, with little success.' This is just what the Republic did avow and the Empire has justly disclaimed.

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health are not less visible than the signs of disease. Labor is by degrees relinquishing its weak hold of property; it can only improve when it ceases to own it; labor is gradually yielding to capital and intelligence what is their due; the miserably small farms are falling in; large farms are coming into existence, and the price of land increases the value of labor. Land is being placed under circumstances eminently propitious to the growth of capital.—Prosperity will thus spread over the land, and the 'Revolution' to quote the words of the late Colonel Baird Smith, 'will advance just as surely, as in the struggle of life industry, 'thrift, intelligence and wealth must displace indolence, extra-'vagance, intellectual stagnation and poverty.'

It is time, however, that we should repudiate socialism and regard the landed proprietors as an element of strength in our government. It is time that we should recognise their position even if we cannot forget our joint misrule of the subordinate tenants. The landed gentry are the only aristocracy of India; the lower classes look up to them, and by securing their allegiance we secure the allegiance of their natural constituents. It is the landed proprietor who best can aid government in times of trouble, directly by capital, indirectly by local influence; the 'people' so called, have ever been the advocates of revolution, while conservatism is the chief cause of the prosperity of the moneyed classes; the landed capitalists raise the demand for labor and consequently the remuneration of labor*; to their leisure we look forward for the mental improvement of the natives and to their social influence for security in times of innovation; speculation, involving preparatory outlay, depends on their assistance and their efficiency as a public body depends on the efficiency of the law courts, and the efficiency of the law courts is the best guarantee of their safety. The destruction of the landed gentry in India is virtually the destruction of capital, intelligence and social prosperity.

And yet such was the class of men that received a rude and rough treatment at the hands of Government, a treatment which Government attempted to justify by its belief in the practical efficacy of the social philosophy. Instead of inspiring

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* Mr Neate in his 'Lectures on Taxation' has adopted some of Mr. Ruskin's visionary principles of practical economy, and instead of attributing the rise and fall in the rates of wages to the increase or decrease of capital compared with the demand for labor, states that the minimum rate of wages depends on the interest, humanity and fears of the employer.

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them with confidence in the rulers of the country as their benefactors and protectors, and the cultivators with confidence in their landlords as their best friends, we have condemned the landlord as a heartless tyrant, and we have taught the ryots to cry down his character and to resist his authority. An Irish landlord in addressing the present Sir Robert Peel teaches us a lesson which we might have with advantage learnt long before: 'drive them,' says he, speaking of landlords and tenants, 'to look for their security alone in mutually beneficial 'covenants for fostering the improvement of the land.' But to our policy nothing appeared so repugnant as to create harmony where we were resolved that discord should prevail.

As if the indirect influences for evil were not numerous enough, by a recent Act (X of 1859) we have armed the ryot with the most successful means of worrying his landlord, and the facts that have recently come to light seem to prove that the ryots have not been backward in using the weapons with which we have so philanthropically entrusted them. Those who in utter ignorance of the subject passed a land bill, which has virtually guaranteed impunity to intriguing tenants, have much to answer for. As a rule a landlord has now much to fear from his cultivators, and the less inclined he is to use fraud and force the more helpless he finds himself in the hands of his antagonists. Those who have watched the working of the Rent Act have been filled with alarm as to its ultimate consequences; while one of their number has prophetically remarked that it will 'develop 'all the worst features of the Bengalee character.'

The sections XVIII and XIX of this prodigy of legislative blundering are evidently intended to create in Bengal the constitutional slavery which is rampant in Madras. If ever an act of the Indian Government was calculated to inflict serious injury on the proprietors of land, this masterpiece of misguided philanthropy is likely to accomplish that result. If our apprehensions are not justified by facts we shall gladly award to the ryot the credit for an amount of disinterestedness and a love for fair play, to which, we have not hitherto thought him entitled, and which the Rent law is not likely to foster in him.

The Act in question is not even a negative good: it facilitates the growth of contentious rights and thereby raises points of dispute between landlords and tenants which must end in harassing litigation; but those who consider it necessary that

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the landlord should not exercise any authority without the aid of the law courts, must idolize the Rent Act as a piece of perfect legislation. We could almost fancy that to create dissension was the very object of the Rent Law; but those who have been so thoroughly deceived as to call this Disruption Act the Ryot's Magna Charta may some day learn to distinguish between licence and that liberty on which well organised society is built. What strikes us as a most wonderful piece of ill luck in our land-legislation in India is the fact that the experience of the past does not seem to light our way into the future, and that each epoch of our century of Government seems to be independent of the rest.

The principles which the Rent Act embodies were in force sixty years ago, and the fruits they bore might have warned us against their hasty adoption a second time. So far back as 1799, we discovered the danger of alienating the landlord from his tenants, and, acting under a wholesome experience of past mischief, we inaugurated a regime, which, as it worked for the benefit of the two classes, who had hitherto been arrayed against each other, was productive, as far as our law courts permitted, of prosperity and good-will between them. We had to a great extent recovered from the rude shocks of class-hostility, when the Rent Act came into operation and once more revived the contest between the owner of land and the owner of labor; once more the landlord was to treat the ryot as a traitor in the camp, and once more the ryot was to arm himself against the landlord as a determined tyrant whom it was a matter of conscience to baffle. We have for a second time in the history of our rule in India treated the interests of Government after one code of justice and equity and the interests of the landlord after another.

We have it admitted on all hands that the poverty of India must be cured by British capital and British intelligence. It is also alleged that British settlers will increase the price of labor, and one of the most enlightened of our Indian statesmen regards 'their presence in the country as beneficial' and, politically speaking, of 'the highest importance.' But is it reasonable to expect that British energy and capital could flourish in a country where they must hopelessly war with men whose co-operation is the *sine quâ non* of mercantile success? Is it possible for British settlers to hold their own against a clique powerful in numbers and supported by the undisguised sympathy of our

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legislature? Landed proprietors do not beg for any encouragement beyond a spirit of fairness in the public measures of our Government. The ryots will not co-operate with them as long as we hold out to the ryots the mischievous hopes of equality with their landlords; and yet the necessity for such co-operation is daily increasing, and before long we shall have to decide whether capital is to forsake labor, and labor to suffer by the loss of capital, or whether we shall permit the landlords to exercise their natural authority over their tenants?

Let the ryot look for help and protection to his landlord, and to his Revenue Collector for redress against the oppressions of the landlord. But the landlord must be armed with the power to distrain, though that of compelling the rent-defaulter's presence before him must be taken away from among the privileges of his position. The right of distraint belongs to the landlord who is expected to live in harmony with his dependants; but in India, where the creation of so many useless and mischievous rights in the soil has rendered the power of distraint of such importance to the landlord, government has withheld it from him, and yet it has retained for itself this authority in its capacity of the universal landlord. Such anomalies must cease, and the dangerous tendency of the Disruption Act resisted, before it has done its worst. Let us protect the ryot against extortion, and this by an improved judicial machinery it is not impossible to effect; but let us not be so far overcome by our zeal for the ryot as to sacrifice the importance of the landlord.

Those who would deprive the landlord of his most cherished rights and then drive him to litigation for the recovery of his just dues, cannot expect to improve the agricultural resources of a country whose prosperity, connected as it is so intimately with land, is entrusted to the landlord. The evils of the Indigo system have not been remedied by a judicial disarming of the landlord; and we cannot too severely condemn the policy which teaches the ryot to hope for the amelioration of his condition by successfully resisting the authority of his landlord. The Rent Act is however only in keeping with that series of hasty enactments which has jeopardised the value of property in land.

Intimately connected with this subject is the consideration of the subject of penalty for fraudulent breach of contract. If land must be occupied with advantage to the public, if advances must be made to incite native industry, the landlord

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must have the power to distrain, and the capitalist must have a contract law to protect his advances. Those who make so much of the distinction between 'crime' and 'no crime' forget that the positive law which they so vauntingly parade is not altogether on the side of hair-splitters. In fact, between private wrong and public injury there is no essential difference. Again, considering that the contract law could only apply to fraudulent breaches, the opposition it has received from the leaders of native opinion must be regarded as a premium on dishonesty. The law only aimed, as was well put by Sir Robert Napier, to 'punish a dishonest contractor refusing to fufill his 'engagement.' All that has been said against it seems, to be obviously dictated by a desire to support cunning against authority, and by the traditionary distrust of public officers. It is alleged against the Contract law that it tends to 'create serfage,' but its promoters may well remark that in its absence a favoured class of the natives is permitted unrestricted licence; nor is it clear to us, considering that the law would only apply to contracts entered into within the year, how it would revive old evils and swamp the law courts with trumped up charges.

Security is the very life-blood of capital. Where security does not exist, capital will not flow, and if advances must be made, security must be offered. Men who are not naturally honest must have a law which would punish dishonesty; but if honesty neither comes by nature nor is enforced by law, capital must stand still and commerce suffer during its stagnation. The insecurity engendered by a prospect of prolonged litigation is not less dangerous to the operations of capital than the troubles which attend war and public commotions. Let us, by all possible and just means, protect the ryot's liberty against oppressive landlords, but let us offer protection, to those who live by the employment of their capital. We are not advocates of a one-sided contract law, we desire that it should equally protect the laborer and the capitalist—the one against oppression, the other against fraud. We must offer the protection of law to capital; in its absence the operations of capital will be confined within such limits as are considered safe. Let us authoritatively determine the mutual liabilities of him who pledges his labor as well as of him who risks his capital, and we shall entail the necessity of circumspection on both contracting parties and ensure to them a position of mutual safety.

With summary power of distraint to protect his land and

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the contract law to protect his capital, the capitalist-landlord has only to demand an undivided interest in land to improve and extend cultivation. Simplicity ranks only next to security and certainty in land tenures. Land must be placed under the care and control of single proprietorship, before it can attain that power of production which renders it so valuable in Europe and even in the newly settled colonies of the Southern World. Conflicting and involved rights of property in land check the free action of capital, while energy is hampered when it cannot operate with advantage either to the individual or the public. The charm of single and undivided property has turned barren wastes into smiling gardens, and has improved the productive powers of the soil beyond even the highest expectations. We must therefore enfranchise subordinate tenures and make the landholder the *de facto* lord of his acre. Even if the rights and property of some few must suffer under the change of owners, it is of the highest importance that the welfare of the large majority be not sacrificed to any sectional interest howsoever favoured or compassionated by the powers that be.

We must take leave of unavailing sentimentalism and endeavour to treat a dangerous malady with a firm and unflinching hand. In every social reform a small minority has always to make some sacrifice to promote the welfare of the community; a change which involves the freedom of land and labor can hardly be expected but at the cost of some private wrong. In investing the landlord with the absolute proprietorship of his land, and reducing the cultivator to his natural position of a tenant, even when the revolution is watched with care and solicitude, a small amount of pecuniary loss must be suffered by those who by the surrender of certain equivocal rights will secure harmony and mutual co-operation. The writer of the ‘ Land Revenue ’ views with evident satisfaction ‘ the land where rights of half a dozen ‘ kinds have existed for centuries,’ and he might have added ‘ at ‘ the cost of the social and commercial prosperity of the country.’

We should therefore recommend the enfranchisement of all nominal rights of property, and compel all hereditary tenants, and tenants who pay at fixed rates to buy out the right of the proprietor or to sell their right of occupancy to the proprietor of the land. We should allow twelve months for the parties to arrive at some definite understanding; and, if they agree to preserve the conditions of existing tenure, their wishes should not be interfered with, but if they are not able to come to terms

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the Collector of Revenue should authoritatively enforce the most reasonable offer, whether it be of the vendor or of the purchaser of the surrendered rights. It should also be optional with the tenant to give up a portion of his holding to enable him to enfranchise the remainder.

The ryot who buys out the Zemindar's right is entitled to the absolute proprietorship of his holdings, while he who sells his subordinate right is converted into a tenant at will. The success of the Putneedar tenures, the avidity with which the Zemindars buy out 'copyholds' in Bengal, and the results of the enfranchisement of clogging sub-tenures in other parts of the world fill us with hopes as to the advantages which the country would derive from a land system based on simpler principles than those called 'first principles'. Landlords who are absolute proprietors of their lands will never be so short-sighted as to deny their tenants the benefit of a long lease; neither will they be jealous of investing such tenants with useful rights, when they can no longer pretend to aspire to a dangerous position of rivalry. We should also render the subordinate proprietors in every respect independent of the superior landlords; no obligation or engagement entered into by the superior landlord should impose a co-ordinate liability on inferior proprietors, unless the latter are willing parties to the contract.

As we propose to save land from conflicting rights, no good can result from any measure which, while it emancipates subordinate proprietors, fails to conserve the rights and privileges of the superior. If it was a mistaken policy to distrust the landlord as an ally, it was a serious error to drive him to the ranks of the enemies of order and to keep him in a state of chronic hostility to the domestic policy of Government. Having acknowledged the landlord as our foe it was natural to regard the ryots as persecuted innocents; but with all our meddling zeal in their behalf we have only succeeded in inspiring them with an ambition which may conquer by brute force, but will not emulate the victories of intelligence.

It cannot be denied that we were guilty of a wholesale destruction of subordinate rights when we permanently settled the richest province of our Indian Empire, but yet it was hardly necessary to avenge the cause of the injured by persecuting those who had only reaped the advantages of the injuries without themselves causing them. It would have become a powerful government, to have watched the consequences of its conduct without betraying any

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unnecessary alarm. The course we followed was different: we succeeded in forgetting our own share in the evils which the Bengal system had produced, and, forgetting also the good it had done to the country, we persisted in meddling now with the duties of the landlord and then with the duties of the tenant, and in blissful ignorance we fancied that we had redeemed the credit of philanthropy which our solitary act of financial statesmanship had for ever imperilled.

It has been remarked with some truth that the dumb millions who conduce to the prosperity of the rich landowners are treated with lordly scorn, and that thousands of small proprietors are absorbed in the creation of one large estate. But if we cannot defend the conduct of those who are for ever keeping the ryot in his degraded position, we cannot, on the other hand, view the absorption of the miserable cottiers in the light of an evil. There cannot be two opinions as to the folly of creating a false position for the mere cultivator; in trying to raise him to a status for which he was not prepared, we have armed him with a power with which he may ruin, but cannot build up his fortune. It was said with a sneer but not without truth, that the ryots of India are indebted to us only for protection against Mahratta invasions. The rest of our policy towards them, has served to reduce them to poverty and invidious dependence. The bondage of the ryot may not be physically quite so severe, or politically quite so degrading, but morally it is not less ignominious than the bondage of the contemned negro. A freeman in the sight of the law he is the degraded child of poverty, and of moral dependance and the exercise of his rights as a freeman is absolutely an act of danger. Between landlords who mistake their interest and public officials who neglect their duty, between a corrupt police and hampered law courts the ryot seems to have had a destiny without hopes. A change for the better may not be distant; the spirit of reform, which is now reviving the withered limbs of the body politic, cannot but, sooner or later, reach the ryot himself; but it is not safe that he should any longer be permitted to continue in his present demoralised condition in hopes of an uncertain reform; we must put our shoulders to the wheel and aid education; European settlers will do their duty, and the growth of a kindly feeling among the landed proprietors towards their humble ally, are the means with which we must work out the regeneration of the Indian ryot. In times of trouble the importance of the labouring classes cannot be thoroughly appre-

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ciated, nor is it necessary in the midst of the contest for dominion to conciliate the good-will of those who would implicitly follow the dictum of the conqueror; but peace and commerce stand in need of their labor, and for that labor to be valuable the laborers must be intelligent beings. Indeed, the ryot must be taught to look forward to a destiny far above the drudgery which supplies him with his daily pittance; he must be taught to look beyond the bliss of low rents and the glory of successful fraud.

At one time it was the fashion to compare the Indian ryots with the cottiers of Europe, though perhaps the only analogous point was the painful certainty with which they were both sinking under the pressure of altered times. In every other respect the ryot is not less removed from a cottier peasant than he is from the civilization of Western Europe.

The rise in price and the increasing demand for his labor cannot but improve the social prospects of the ryot, but it would be as well to admit that the work of regeneration is only just beginning. That to some extent he is conscious of the presence of evil which has so long influenced his destiny, is not deniable, though it is the fault of Government that the indications of such a consciousness should be exhibited in agrarian troubles andsocial commotion. Lord Harris attributes the degraded position of the ryot to moral causes, and yet but a little reflection would have convinced him that moral causes had in this instance been far less influential than political ones, and that whatever improves his political condition cannot but influence his moral and social condition for good. Such truisms it is painful to repeat, but in India they are still vexed problems of which our statesmen appear still to ask a solution.

It is only right for us to deal kindly with those whom we have injured, even if it were in ignorance; but care should be taken that what we call kindness be not, in fact, a dangerous encouragement to ignorant men who are already elated with hopes of unrighteous success. Let us take it for granted, and the position does not admit of controversy, that to befriend the ryot in a spirit of rivalry with the landlord is a serious mistake, and that we must give up the policy of setting the tenant against those whose best interest it is to help him, and to act in harmony with him. With the landlord for his enemy, the aid of government howsoever vauntingly offered, cannot avail the ryot. In Bengal the courts of law unconsciously, perhaps, allied themselves with the landlord, and the legislature in its wisdom

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thought it necessary to arm the ryot with mischievous enactments. 'Interests,' observes one who ranks as an authority on the subject, 'so inseparably connected will always find in their 'relative advantage the most desirable security.' Yet the historian of India observed that the ryots were vested with 'the power to 'distress the Zemindar;' and what was still worse, having rendered the ryot obnoxious to the landlord, we virtually placed our law courts at the service of the Zemindar, to avenge himself on his enemy. Is it possible to conceive of a predicament more fraught with danger? We boast of having armed the ryot with a freedom of action which he did not enjoy before, but we forget that whatever the intrinsic value of this freedom may be, the ryot has not the good sense to exercise it with advantage to himself.

The miserably small patches of ground, which the ryot cultivates at a comparative loss of labour, hardly admit of a remunerative employment of capital. The little that he owns he cultivates badly, but he is so strongly attached to the soil that he prefers to eke out a life of misery on his wretched holding to seeking a just remuneration for his labor elsewhere. He lives in that state of happy uncertainty which leaves him nothing to hope and nothing to fear.

The multiplicity of small holdings leads to neglected and ill-cultivated farms; the landlord oppresses on one side and the tenants resist on the other. Small holdings not only waste the productive powers of land but cannot even remunerate outlays of capital, though they reduce the rent of the landlord as well as the wages and profits of the cultivators. Skill finds no opportunity, and capital cannot cure the inherent defects of patch-holdings, and the impoverished multitude who hang on them add still greater obstacles to the success of improvement schemes. When the average holdings of millions of cultivators do not exceed an acre of land, agriculture must decline, rent become nominal, capital almost unnecessary, and cultivable lands actually scarce.

The aggregation of multitudes on the soil, without the means to improve it, leads to that mischievous competition for land which ends in agrarian crimes, and low wages. Nor does the landlord escape the evil influence of an unnatural spirit of rivalry; he is less confiding and more exacting, and whatever be the prospect of his rent-roll in figures, he seldom realises his expectations. The ryot has to submit to a rack-rent which renders it impossible for him to take up new land; he cannot

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improve what he already cultivates, and agricultural progress which is identical with territorial increase of cultivation is permanently arrested. Before we can hope to carry cultivation over an extent of land which would weaken the chances of suffering from partial drought, before we can increase the quantity and improve the quality of the raw produce of the coountry; before we can profit by the action of capital and the reduction of rent, we must emancipate the ryot from the slavery to which he is so fondly attached. We must give him his freedom even if it were against his will; we must free land from the curse of indigent cultivation, and the ryot must turn his labor to the wants of commerce and to professional industry.

The ryot must have a future; live he must, but he must live to his own advantage and that of the public. He may chooseto cling to the land which has hitherto wasted his means, such as they were; but we owe a duty to the landlord, we owe a duty to the public as well as to the cultivator, and they all point to practical results through the emancipation of the land and the emancipation of the ryot: the former from the burden of a thriftless beggar, and the latter from the grasp of an exacting mistress. We have elsewhere proposed the means by which this emancipation is to be attained, and a few years of experience would establish that spirit of co-operation between capital and labor which we all desire. The emancipated ryot would profitably employ himself on manufactures and the public works of the country, and the emancipated land would thrive under the healthy influence of capital, energy, and intelligence.

The laborer would not be permitted to stand or fall by his wretched holding; his labor is of greater value to him when he abandons the land he cannot improve: Nagpore wants his labor and wants it in vain; in the most densely populated parts of the country there is a growing demand for it; railways suffer in its absence; Assam and British Burmah bid high for it, and yet we have allowed half a million of workmen to emigrate and millions besides to lay themselves out in bondage on land. We do not advocate a systematic mortgage of labor so as to convert it into a mere servile drudgery; but at the same time we can no longer suffer land to deteriorate under myriads of ill provided cottiers. It was the policy of the late Company to confine the ryot to the land, and the ryot has in turn confined cultivation within his limited means. He must now be compelled to leave his doomed patrimony to others, and to earn the fair

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wages of his labor instead of wasting it in a hopeless struggle against poverty and debt.

We must also destroy that mischievous 'right of bare occupancy;' it was no doubt a cunning device by which ignorance attempted to compromise involved claims. If it be put to a man that theright of occupancy at fixed rates is analogous to the authority which one man may possess to use another man's property, the folly of tolerating such an anomaly would be to some extent apparent. The Rent Act of 1859 protects pauper tenants by investing them with the right of occupancy and thus reviving the dangers which we hoped we had outlived. A power, which is only effective for purposes of annoyance and too weak to produce any good, ought to be condemned, if it were only to save those in whom it is said to be vested. The miserable *Khood Khast* of Bengal who passes away with his land does not possess, in law, the right to share in the alluvion which the proprietor of the land may claim and occupy. And yet the *Khood Khast* can only be ousted by the merciful action of Ganges, as the law provides no other means for the extinction of this mischievous class of tenants.

The hereditary cultivators of the North West and the Punjab have been well entitledby one of our ablest fiscal officers as 'our greatest mistake.'* The regulations do not treat them as proprietors of the land they cultivate, and yet the proprietor himself derives no profit either from the land of which he is the reputed owner or the tenants of whom he is the repured superior. Hereditary cultivators are neither tenants at will, nor proprietors; but it is their dangerous privilege to keep nor session of fertile lands and waste them at will or keep down their value by simply retaining possession of them.† Why not declare them proprietors at once? Why not legally invest them with the right of property when they can and do exercise that right indirectly, unfairly and injudiciously? The right of occupancy without the right of property has given the death-blow to many an enterprising speculator, without doing the tenants the least

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* 'A tenant who can never be called upon to pay rent, is an inconsistency; converted into a sub-proprietor, he is the owner of an intelligible property.' Cust to the Secretary of the Punjab Government.

† 'The more favored hereditary cultivator pays the revenue on equal terms with the proprietors, so that the latter derives no profit whatever from their lands'—Revenue Report for the Punjab. Mr McLeod further remarks that the creation of these tenants 'is prejudicial in many ways, militates against the improvement of the land and is altogether anomalous.'

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amount of good. Subordinate or small proprietors have risen to wealth and have progressed in utility, but the hereditary tenants and the perpetual occupants without right of property, who seem to occupy a sort of unnatural position between a tenant and a proprietor, have neither profited the landlords nor profited themselves. Property in land should hereafter be purchasable like property in moveable goods; it may also be otherwise alienated, but length of occupancy should never again be permitted, unless it be adverse possession beyond the statute of limitation, to confer right of property.

Hereditary tenants cannot sell or mortgage their right; where the right was saleable it proved a more decided curse. In Ireland when the privilege of occupancy had a marketable value the landlords wasted their incomes in foreign countries, gave up all interest in the land, and to use the words of the Devon Commission 'this apparent property or security was the means by 'which the tenants were enabled to incur future incumbrances in 'order to avoid present inconvenience.' Land was locked up and property in the soil was not valuable enough to create a desire for improvement. What with the 'apparent right' of occupancy, the eternal right of pre-emption—a right which is only tolerable within well defined limits—about two-fifths of the cultivable land of India have been successfully protected against the encroachments of the ploughshare.

We must clear land of all nominal titles which have so long weighed down its resources. Let the landlord buy out his hereditary tenants and his *khood khast*, or let them purchase the right of property from the landlord. Subordinate independent proprietors are an invaluable acquisition in an agricultural country, they relieve the superior landlord of personal labor; they possess both his intelligence and his love of improving property; they bring themselves more intimately into contact with the land and tenants; they possess the means and the will to undertake small speculations, and they have not seldom protected the tenants against the oppression of the superior landlord. They are infinitely better managers of property than the speculating *Esaradars*, and do more good to the soil than the rich absentee who can waste his revenue with impunity.*

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* 'The existence of intermediate tenures, which are heritable, and transferable and not terminable, is admitted by the highest authority; moreover, they do exist; they must increase &c.'—Cust to the Secretary of the Punjab Government.

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When the hereditary tenant has sold his right of occupancy he may with advantage resume possession of his land on a written lease. A long lease under reasonable terms is a double blessing; the landlord would allow the tenants under lease to sink capital in the land when they cannot evade the conditions of the lease. If on the expiry of the term of the lease the land bears marks of improvements,—unless these improvements were effected at the expense of the landlord—the tenants are entitled to compensation. If it be possible, let all extraordinary expenses be incurred by the landlord, and let him raise the rent in proportion to the outlays incurred by him, or else let all improvements incorporated with the land be compensated under express contract. But tenant improvements,—the result of skill or money—which can be removed without losing their identity may be appropriated by the tenant.

However, should the landlord be averse to a long lease the cultivator must occupy the land as a tenant at will or seek occupation out of it. In a country where labor is scarce and the price of labor is steadily rising, in a country where there are only one hundred and thirty-six men to a square mile, the tenant who leaves his land and is willing to labor cannot die for want of work. If he continues a tenant at will he must submit to the rule of his landlord; a submission which does not in one case out of a hundred interfere with the just rights of the tenant.* As a tenant at will the cultivator cannot profit by any subtle or dishonest evasion of the terms of his '*pottah*' and will therefore not have recourse to them. He will be guided by his landlord as he needs to be, and it will not rest with him whether he chooses to improve the land or to allow it to lie fallow. In an old country tenants at will are the pioneers who facilitate the advance of cultivation. Let every ryot have a *pottah* with the legally prescribed particulars endorsed on it, and even if his tenure be only temporary, let it at all events be secured for the time. Tenants at will will form the advanced guard of agricultural progress under the directing intelligence of European capitalists; their labor must eventually ensure to them complete success; the land on which even speculators would not venture is reserved for the industry of the tenants at will, and in the great social economy they have an office peculiar to themselves.

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* 'My idea is that a 'tenant at will' is what a literal interpretation of the words used show him to be. * * There is no law that can keep him in possession * * but it will be long ere in the Punjab the landlord will ill-use his tenant.'—Cust to the Secretary to the Punjab Government.

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ART. VI.—*The Punjab and Dehli in* 1857, *being a narrative of the measures by which the Punjab was saved and Dehli recovered during the Indian mutiny, by the Rev. J. Cave-Browne M. A., Asst. Chaplain Bengal Presidency, Chaplain of the Punjab movable column in* 1857—2 *vols.* 12*mo.* London: W. Blackwood and Sons.

THE number of books to which the Indian mutiny has given birth is very large. We have personal narratives, and journals, and histories of campaigns innumerable, written by Special Correspondents, Officers in the Army, Civilians and their wives; and although some attempts have been made to produce a comprehensive work on this interesting subject, no reliable and satisfactory history of the Indian Rebellion has yet been offered to the world. Our proximity to this dire calamity may operate to hinder the formation of enlarged and philosophical views of it; but with some exceptions, to which we shall presently advert, our knowledge of the main facts and incidents is complete.

Viewing the subject geographically, we have Mr. Cooper's and Mr. Cave-Browne's works on the Punjab and Dehli. The Siege of Dehli has been treated of by Col: Norman, Rev. J. E. W. Rotton, Captain J. G. Medley, Dr. Ireland and some others. Col: Norman's *Report* is very dry and very authentic, while Dr. Ireland's Narrative is pronounced to be the best by an excellent authority, the *Friend of India*. The other two are not worthy of criticism. Col: Bourchier describes the pursuit of the rebels after their flight from Dehli, and the battle fought at Agra with the Gwalior contingent. The incidents of the siege of Lucknow and the mutiny in Oude are furnished by Mr. Rees and Mr. Gubbins. The story of Cawnpoor to the time of the embarcation of the English has been written by Capt. Thompson. But of the fate of the captives of the Nana Saheb, subsequent to Capt. Thomson's escape we do not know any thing satisfactory. That officer's assertion that after the siege our women were reduced to so disgusting a condition that no sepoy would have condescended to violate them is a gratuitous assumption, and is opposed to facts which have occasionally since oozed out, notwithstanding the anxiety of the few unfortunates who escaped alive and their friends to bury in oblivion the insults they had endured. Indeed the treatment of their European captives

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by the mutineers at Meerut and Dehli is likewise enveloped in mystery, from a desire on the part of the historians to leave no record of our shame. Such delicacy we consider to be wrong. We trust that the author of the Indian Rebellion, whenever he enters on his task, will not be influenced by any such false ideas where the interests of truth are concerned.

The outbreak in Rohilcund, and the massacres perpetrated at Bareilly, Shahjehanpoor, Moradabad and Bijnore have never been described, except in short notices in the newspapers of the day. Of his experiences at Budaon Mr. Edwardes gives but a scanty account. The fate of the fugitives from Futtygurh remains to be cleared up. It is only known that they were all murdered by order of the Nana as they were passing Bitoor in boats. Large families have become extinct; but we should like to learn how. The difficulty in getting at the truth is mainly to be imputed to the fact that very nearly all the Europeans, nay all the Christians, who did not flee before the storm (and those who did could not have witnessed it) were exterminated, and the few survivors are unable or unwilling to make startling revelations.

The reconquest of the Gangetic Dooab, Oude and Rohilcund forms the subject of Marshman's Life of Havelock and Russell's Diary in India.

Towards Central India, the outbreaks and their suppression are described in Pritchard's Mutinies in Rajpootana and Lowe's Central India during the Rebellion of 1857-1858. Of Mrs. Coopland's work on Gwalior, it is snfficient to say that like Pliny's Natural History, it is an *omnium gatherum*, embracing the Zoology, Meteorology and Ethnology of the place. She has made a spasmodic effort to expand into a volume events which would barely have sufficed for a chapter.

The narratives of Mr. Edwardes during his concealment with Mr. and Mrs. Probyn in Oude; of Mr. Dunlop's skirmishes with the rebels in the neighbourhood of Meerut; and of Mr. Robertson's duties in the district of Saharunpoor, are episodes of the mutiny replete with interesting facts.

The only general history we have yet seen is that published by Messrs. W. and R. Chambers in 1859, written by G. D.—Who this writer is, whether possessed of any knowledge of India, or a mere compiler, we have no means of knowing. As the book was really finished in 1858, it is necessarily imperfect, for we have hardly yet obtained complete data for a comprehensive

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history of the Indian Rebellion. In Dr. Nolan's History of India, scarcely a hundred pages are devoted to this topic.

But it is time we should turn our attenion to the work of the Rev. Mr. Cave-Browne.

Although we are, as usual, indebted for Mr. Cave-Browne's book to 'the solicitation of friends whose opinions he valued,' (p. viii) it is certain that it is written on the sound commercial principle of *quid pro quo*; the Punjab officials having supplied him with facts, he repays them with praise. In the absence of specific acknowledgments it is impossible to estimate the extent of his obligations to them: 'his many kind friends, 'who have more or less helped with information'—and 'in-'formation came in from all quarters and in all shapes' (p. ix) —are named once for all in the preface; but there cannot be a shadow of a doubt that the return he has made is most liberal, 'very considerable indeed.' He is lost in 'feelings of admir-'ation for the wisdom, the devotion and the heroism by which 'humanly, our preservation, was achieved' (page vii); and at page xi we have the commencement of a beadroll of nineteen officers, Civil and Military, of the Punjab, who are extravagantly eulogized, many of them deservedly, but none of them, we are assured, in such terms as they would sanction. Dehli would have fallen although a John Nicholson had not been there, for there were hundreds of thoughtful heads, and thousands of brave hearts and willing hands; and although we consider Sir Stuart Corbett entitled to great praise for his proposal to disarm the Native Troops at Mean Meer, we cannot think he performed 'an act which made men wonder—and *hope*.' This propensity to indiscriminate adulation which pervades both the volumes, and which must be nauseating to most readers possessed of ordinarily healthy stomachs, does not however satisfy the tender conscience of our author 'who cannot but fear that notwith-'standing all his endeavours, he may have done, or seemed to 'have done, less justice to some of the brave men to whom England 'owes so much. Again, he feels that the narration of their gal-'lantry and prowess may lack that glowing interest with which 'the mind of the reader, vaguely familiar with the glorious results, 'has already encircled them' (p. x). We sincerely hope that the thirty-three Officers and 'many others' (p. xviii) who supplied information will compensate the Reverend Gentleman for his excess of praise by ordering large numbers of copies of his work for presentation to their friends.

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We beg respectfully to intimate to the author our conviction that his suspicion is quite correct, that 'he has allowed his sympa-'thies with the Punjab to carry him beyond bounds, and that 'in the praises he has bestowed on the administration of that 'province, he has wronged'—not so much 'others' (p. xiv) as those he has made the subject of his fulsome eulogiums.

We consider the hypothesis that the rebellion was essentially of Mahomedan origin, and that the Hindoos were the dupes of Mahomedans, to be unsupported by facts. It is true that the nominal head of the mutiny at Dehli was Bahadoor Shah, the ex-king; but at Cawnpore Nana Sahib, a Brahmin, was the actual leader. We believe that our rule is hated by Mahomedans and Hindoos alike. Any distinction between them is purely imaginary.

What has led Mr. Cave-Browne to say that the Khalsa, or the Sikh soldiery, held the Poorbeahs in supreme 'contempt' (p. xv) we are at a loss to imagine. We should be glad to learn on what authority this assertion is based. Any one acquainted with the organization of the Sikh army must know that Dhowkul Sing, a Poorbeah, and perhaps a deserter from our army was for many years the Commander-in-Chief of Runjeet Sing's army. Jamadar Khoosal Sing, a most influential person in Runjeet Sing's court, was a Poorbeah, and his nephew, Raja Teja Sing, the greatest native at Lahore, was a Poorbeah by descent, and most of his dependants are Poorbeahs. In truth we should not be far wrong in stating that one-fourth of the Khalsa army consisted of Poorbeahs, who were to be found in all ranks. There is a quarter in the town of Lahore long known as Mohulla Poorbeah. Then again, the famous sacred cities and rivers of the Sikhs, who are really Hindoos, are all in the Poorub; and to this day vast crowds of Sikh pilgrims resort to Kashee or Benares and Prag or Allahabad. Indeed Sikhs are frequently met with who have performed their devotions at the shrines of Gyah and Jugurnath. The Ganges at Hurdwar is visited annually by thousands of pious Sikhs. All who can afford it, send the bones of their dead to the holy stream of the Ganges. Can we then credit the statement that the Sikhs despise the inhabitants of countries which they believe to have been the scenes of the exploits of their gods, and intercourse with which they feel to be necessary to the salvation of their souls?

The term *Poorbeah* was not 'revived' with the mutiny as

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Mr. Cave-Browne supposes, but began then to be generally used in the English language, we believe from necessity, as it had always been employed in the vernacular in all parts of India. His idea of its revival widening 'the breach between the Pun-'jabee and the Hindoostanee' is purely imaginary. We have shown that there was no breach, but perfect amity between the two peoples. But our author is not singular in cherishing such an idea. Sir R. Montgomery, the Judicial Commissioner of the Punjab, was evidently influenced by it when (in 1857) he issued orders for the dismissal from their situations of all Hindoostanee employes, and for their deportation to Hindoostan. He may have wished also to guard against their active sympathy with their brethren who were fighting against us at Dehli and elsewhere, but the main design was to conciliate the Punjabees and foster in them a spirit of hostility to the Hindoostanees. We consider this policy to have been erroneous. It exasperated the men who were subjected to undeserved punishment, it increased the number of the disaffected in the cities and villages of the North West Provinces, and it had really no effect on the Punjabees, who looked with indifference on a measure that subserved no ill-will on their part.

While orders were issued for the expulsion of Hindoostanee servants from the Punjab, the Judicial Commissioner recorded a paper in favor of native Christians who were to be admitted into the service of the State on the same terms as the Punjabees, if found to be equally qualified. We believe both these orders have now become a dead letter. An official report just published shows that one third of the native establishment consists of the natives of Hindoostan, except in the distant frontier districts which offer little temptation to adventurers, while the proportion of native Christians is—nil!

In attempting to trace the causes of the mutiny we think the author has overlooked some important facts. The universal feelings of mankind ought to have led to the conclusion that the rule of foreigners, alien in religion, habits of thought and civilization, however benevolent and enlightened, could never have been heartily acceptable to the natives. Some statesmen, possessed of more than ordinary foresight certainly did advert to a time when an effort would be made to cast off our yoke; but these were looked on as visionaries by the generality of our countrymen, whose confidence in the loyalty of the Asiatics to their salt went to such extravagant lengths, that during the

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Persian campaign of 1856 it was gravely proposed to conquer that country by raising an army of Persians on the spot. It is true that the natives of India, soldiers as well as civilians, had generally so well disguised their deep aversion to us up to 1857 that they obtained credit for an utter absence of patriotism. Indeed it was said they had no word in their language expressive of the idea.

This well concealed, but ever present feeling of hatred to a foreign domination was enlivened with hope by our disasters in Afghanistan. The sepoys and camp followers then for the first time saw that we were not absolutely invincible ; and that our prestige was there seriously impaired in their estimation is proved by what subsequently took place at Patna and led to the enactment of Act XIV of 1849.

The cartridge blunder contributed to blow into a flame the embers of bitter hatred which had smouldered for a century, for it offered a grievance in which both Mahomedans and Hindoos could cordially unite. Caste is a thing in which they all pride themselves. However inferior they may be in wealth and power to Christians, in caste they are their superiors, and any attempt to take away *that*, if successful, would in their opinion debase them to the condition of brutes. This led all parties to combine in measures of resistance to the Government. The distribution of *Chupatees* was only a mode of giving intimation to the dwellers at a distance of the designs of the rebels. Mr. Cave-Browne justly remarks 'that therein was 'really hidden an eastern symbol of portentous meaning.'

We however doubt his authority for stating that 'the great 'body of the Hindoo sepoys, mere tools in the hands of 'the Pundits who had been first won over, were caught in the 'trap laid for them by the wily Mahomedan.' (p. 6). Our conviction is that we are equally obnoxious to both, and that the Hindoos never needed the influence of any trick to join the Mahomedans willingly in treasonable plans. Who tampered with and won over the Pundits? Who are the Pundits that were tampered with? The sepoys and the rabble of the towns and villages, who without distinction of caste or creed, thirsted alike for European blood, could not possibly have been under the same spiritual guidance.

How contentedly the Hindoos obeyed a Mahomedan king in Oude we have ourselves seen. The occasional collisions between a few fanatics of the differing creeds in the month of Mohurum

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had nothing to do with their loyalty to their sovereign. At Bareilly and other Mahomedan towns in our older provinces such disturbances sometimes occur and lives are lost, but as they have really no political designs, so no one thinks of giving to either party any credit for affection to their rulers. It is singular how far a love of theory will carry even an honest historian. For our part we should be delighted to believe, if Mr. Cave-Browne will only afford us reasonable ground, that we are liked by the Hindoos, who would not have murdered our women and children if they had not been entrapped by the Mahomedans; but we have no hope of being led to think so well of them.

The prominence which our author gives to the designs of Persia and to the Persian Proclamation ('which possibly received 'its inspiration still further north' (p. 4)—Russia?) we conceive to be quite mistaken. There doubtless was some coquetting with Persia on the part of the ex-king of Dehli, but we cannot allot to Persia any share in producing the Indian rebellion.

The annexation of Oude was undoubtedly particularly distasteful to the sepoys. That, too, was a political blunder. The Government of that country had been bad always, and afforded no good plea in 1856 above all other years for its destruction. It was a breach of public faith to annex the country, and the Poorbeah sepoys had their dependance on our truth terribly shaken by that measure. We know the effects in our own country of the falsehoods of Charles the First.

We are inclined to place in the following order the causes which brought on the mutiny.

1st. Hatred of foreign rule.

2d. The disasters in Afghanistan which revived the hope of casting it off.

3d. The annexation of Oude.

4th. The greased cartridges which offered a common grievance to sepoys of both creeds.

5th. The machinations of the ex-king of Dehli, who volunteered to head the rebellion.

The question whether the earliest display of disaffection, if met by condign punishment, would not have nipped the rebellion in the bud opens a wide field of speculation; but want of space forbids us to do more than briefly to give our own views on the subject. That the measures taken to repress the earliest overt acts of mutiny were distinguished by a singular want of judgment we fancy no one will now dispute.

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'Up comes Mr. Commissioner Pordage with his diplomatic 'coat on.'

'Captain Carton,' says he,' Sir, what is this?'

'This, Mr. Commissioner, is an expedition against the Pirates. 'It is a secret expedition, so please keep it a secret.'

'Sir,' says Mr. Commissioner Pordage, 'I trust there is going 'to be no unnecessary cruelty committed.'

'Sir,' returns the officer, 'I trust not.'

'That is not enough Sir,' cries Mr. Commissioner Pordage, 'getting wroth. Captain Carton I give you notice. Govern-'ment requires you to treat the enemy with great delicacy, con-'sideration, clemency and forbearance.'*

We trust to show how religiously Mr. Commissioner Pordage's injunctions were obeyed in this country.

At Berhampore 'were quartered the 19th. Native Infantry, 'the 11th Irregular Cavalry and two guns of a native Battery. 'The rumour of the obnoxious bullock's fat was not long in 'travelling so far, and there were apparently in the 19th. N. I. men 'prepared to make good use of it for their traitorous ends. In 'the middle of February the Regiment avowed its determina-'tion not to touch the suspected cartridge. In vain did the 'Officer Commanding (Colonel Mitchell) offer the assembled 'Native Officers the most solemn assurances that no new car-'tridges had been sent there; that those in daily use had been 'left by the 7th N. I. whom they had relieved; and that nothing 'was further from the wishes of Government than to coerce 'their religion. When he found them still determined'—what did he do? Did he suspend further solicitations and apply to Government for a European Regiment or for Rattray's Sikhs to coerce his men to obedience? Or did he take steps to assure himself of the loyalty of the 11th Irregulars and the Native Artillerymen as likely to act agaidst the 19th N. I.? The latter measure most men would have deemed superfluous; for the sepoys would never have proceeded to the lengths they did without the concurrence of the horsemen and gunners. However, the Colonel did nothing of the kind, but—'warned them that on the follow-'ing morning the usual cartridges would be served out, and any 'man refusing to take them would be tried by court martial and 'punished!' We presume Colonel Mitchell put on his 'diploma-tic coat' when he announced this order. Besides the magic

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* *Household Words, Vol.* 16.

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influence of that article of dress there was nothing to insure obedience. To proceed with our quotation.—'This occurred in 'the afternoon of February 26th. In the dead of night the 'men rose, rushed to the bells of arms and carried off their 'muskets and ammunition to their lines. Colonel Mitchell at 'once ordered out the 11th Irregulars and the guns,'—with what object is not stated. 'The presence of this force, instead 'of overawing only exasperated the sepoys; they rushed out of 'their lines in a menacing attitude and many of them began to 'load. They were ordered to lay down their arms, but they de- 'manded the withdrawal of the Cavalry and guns as the only 'terms on which they would do so. Their demand was complied 'with, and after some delay they sullenly piled arms and retired 'to their lines.'

What can account for such fatuous conduct but a firm determination 'to treat the enemy with great delicacy, consideration, 'clemency and forbearance?' The Colonel had evidently made up his mind that no lives should be sacrificed in the attempt to secure such trifling objects as the maintenance of military discipline and public tranquillity. We do not mean to imply that the Cavalry and Artillery would have attacked the mutineers; indeed we are persuaded that any order to charge or fire would have been at once disobeyed and the entire force would have fraternised on the spot. But the careful abstinence from any effort to coerce, and the weak compliance (to use no term more appropriate) with the extorted demands of the mutineers were enough to spread far and wide the dangerous impression that the Government could not resist the sepoy army. Our author's pleas in defence of Colonel Mitchell's conduct will not bear the test of examination—'he had no European troops to fall back upon; there 'was no Colonel Gillespie with his English Dragoons within 'reach; even Rattray's Sikhs were too distant to be available.' Why did not Colonel Mitchell, when he found his men determined to disobey orders, report the fact to Government and wait till a European Regiment could be sent to Berhampore? There was apparently no danger in a state of quiescent mutiny, a state in which the 19th N. I. had continued from the middle of February to the 26th of that month. In a month from that date a force sufficient to subdue the mutineers, we believe, could have been assembled from stations extending to Dinapoor on one side and Calcutta on the other. As to the presumed fidelity of the 11th Irregulars and Artillery, the Colonel evidently had no faith

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in them from his abstaining, at the critical moment, to order them to act against the mutineers. If he trusted them, and still would not order them to act, his conduct is still less excusable.

The Governor General, unfortunately for India, seems to have been actuated by convictions in perfect harmony with those of Colonel Mitchell; for after the 19th N. I. had been ordered to Barrackpore, it was *punished* for defiant mutiny by simple disbandment, a decision at which Lord Canning arrived at the end of March, or some five weeks after the outbreak at Berhampoor. The mutineers were dismissed with all honour; they were paid up to the last day; received a present of their uniforms; had the expenses of their march defrayed; and medical officers with medicines were sent with them as far as Chinsurah!

All this truckling to the sepoys of the 19th N. I. took place on the 31st March, two days *after* the 34th N. I., also stationed at Barrackpoor, had encouraged Mungal Panday to cut down their Adjutant Lieut. Baugh and the Sergeant Major. 'The whole regiment had turned out and stood looking on, 'hooting and yelling, and some of them were heard crying out 'kill the Feringees' (page 20). The 34th N. I. that is, the seven companies* at Barrackpoor were also disbanded on the 6th May!

Our author justly observes that 'the seeds of sedition were 'thrown broad cast over the land.'

The question has been raised whether mild and conciliatory measures, such as Lord Canning adopted, were not better calculated to dispel suspicion and alarm in respect to such a vital subject as *caste* than the infliction of the punishment usually awarded for mutiny. Now that the storm has blown over us and passed, it may be said that it requires no penetration to tell what would have been the wisest plan to meet it. But the experience of all ages all over the world, and of India in particular, points to death as the sole appropriate penalty of open and defiant mutiny, and the only means of stopping it. In acting contrary to the practice of all time, Lord Canning evinced no statesmanship. He put his crude judgment into the scale against the wisdom of mankind, and the consequences of his error were fatal; mutiny and rebellion all over India, the destruction of myriads of lives, and the loss of millions of revenue. These, we fear,

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* 'Three companies were on detachment duty at Chittagong, and allowed 'to retain their arms which at a later period they used with murderous effect.'

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are not all. That incubus, the Income tax, is still harassing us. All observant men see that an extraordinary change has come over the native mind, owing, we conceive, to the weak policy pursued by the Governor General. The respectful and friendly demeanour of natives towards Europeans, which prevailed before the mutiny, has been exchanged for a frowning aversion, and when an officer in authority cannot be boldly stared at, he is certainly saluted with a *salaam* as he passes, but the saluter incontinently gets a simulated fit of coughing, and his hatred is expressed by spitting * as soon as the officer has passed on. We have heard of an instance when an officer, riding at dusk through the town of Labore at the end of May 1857, was greeted occasionally by most extraordinary sounds made by the shop keepers. Those who understand native character and habits know what these signs and sounds signify. We would ask what worse effects would have followed had Lord Canning proceeded in the manner prescribed by the vulgar experience of mankind? The probability certainly is that as at Vellore in 1806 and at Barrackpoor in 1825, so in 1857 mutiny would have been effectually suppressed either at Berhampoor or at Barrackpoor.

Unfortunately the example of imbecility set by Colonel Mitchell and followed by Lord Canning was faithfully copied by the Commander in Chief, General Anson. Drigpal Sing, a Soobadar or commissioned officer of the 36th N. I. who at Umballa taunted two non-commissioned officers of his corps, temporarily attached to the Depôt of Musketry, with having become Christians, and had them put out of caste because they had used greased cartridges, was mildly told that his conduct was 'unbecoming and unsoldierlike,' while the victims of his villany were to be 'severely censured,' and one of them had his promotion stopped. Lieut Martineau the Instructor at the Musketry

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* At Rampoor a town belonging to an independent Nawab in Rohilcund, bravoes come to deadly encounters merely by spitting at each other on the ground without uttering a word. 'Sir T. Metcalfe had also retired from the 'Calcutta gate when he saw the serious turn that matters had taken and 'rode off to the Kotwallee (the native police court) in the Chandnee Chouk 'and ordered out the Police to guard the other gates of the city. But 'treason had been busy here too. That name which had with little intermission been associated with the city for above 50 years had now lost its 'power; the nephew of Sir Charles Metcalfe was no longer recognized in 'Dehli. The Kotwal received the order and *spat upon the ground*; the police 'heard it and smiled."—Page 62.

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Depôt in vain represented that 'the greased cartridges alleged 'to be smeared with cow's and pig's fat were more the *medium* 'than the original cause of this wide spread feeling of distrust 'that is spreading dissatisfaction to our rule,' and in vain did he suggest that a European Court of Enquiry should be held at Umballa, where every night public and private houses were being destroyed by fire. All that General Anson did was to order at first the suspension of the use of the greased cartridges, and afterwards (on 17th April) to make the whole Brigade use them, 'and that night some thirty thousand rupees worth of 'government property was destroyed by fire.'

Major General Hewett at Meerut followed suit; for on the 10th of May he allowed the 3d. Light Cavalry and the 11th and 20th Rgiments of N. I. to force open the central jail, to murder all Europeans who came in their way, to burn and plunder the station and to march off quietly to Dehli; although he had then and there about 2000 Europeans of all arms ready and anxious to fight the 2000 natives. Not a man was sent to mark the road the Mutineers had taken and to warn the authorities ahead. Mutiny and cruel massacres at Dehli on the 11th May were the consequences.

Had the Mutineers been vigorously attacked when they broke out on the 10th, it can hardly be doubted that those of them who escaped would have dispersed quietly to their homes. Had the Major General even prosecuted the pursuit to Dehli next morning, the results would have been very different; for that arch traitor Bahadur Shah, the nominal king, refused to give open countenance to the besiegers of the Dehli Magazine till his messengers, dispatched on fleet camels towards Meerut, returned in the middle of the day and reported that no avenging force was approaching from that station. The gallant Willoughby defended the magazine till resistence to the swarms of besiegers appeared to his little band to be hopeless, and then 'he 'rushed to the small bastion on the river face—one more look— 'a long anxious look—towards Meerut, but not a sign of coming 'succour.' He lost heart, blew up the magazine, and effected his escape with his few surviving subordinates, leaving immense stores of warlike material in the hands of the rebels. To what deeds of heroism would not a sight of the 6th Dragoons or 60th Rifles coming from Meerut have urged this brave little band!

It was at Lahore that the mutiny first received a blow which

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staggered it. Sir Henry Lawrence at Lucknow was unable to offer any check owing to the paucity of the Europeans at his disposal. He did all that a wise and courageous leader could do; he provided for the safety of his small garrison, but that was all. But no sooner had the electric wire flashed from Dehli the startling intelligence, 'the sepoys have come in from Meerut and are burning every thing'—than Sir Robert Montgomery, then Judicial Commissioner, in a council of heads of departments, declared his conviction that, nothing 'but a prompt, vigorous course could save the city and prevent an 'emeute among the Mean Meer sepoys.' The plan at first formed of depriving the native troops of their gunpowder and gun caps was soon perceived to be insufficient.—When the possession of arms was illegal and subjected the offender to fine and imprisonment no difficulty was experienced in producing them when occasion required, it is not to be supposed that merely emptying the pouches of the sepoys would make their muskets useless to them. Brigadier Corbett, later in the day, resolved, *at the suggestion of Colonel Macpherson, Military Secretary to the Chief Commissioner,* to disarm the native troops altogether. Mr. Cave-Browne gives the credit of the disarmament entirely to the Brigadier, and the responsibility of the measure undoubtedly rested with the latter, but Colonel Macpherson should not be deprived of the merit of the suggestion. Sir R. Montgomery too passes over the circumstance in his 'Mutiny Report' 'I 'suggested,' says he, 'that they (the sepoys) should at any rate 'be deprived of their ammunition and percussion caps. To 'this Brigadier Corbett readily agreed, and subsequently, with 'most praiseworthy boldness, determined to disarm them entirely. 'He executed this measure the next morning, the 13th May, 'in my presence in a most masterly way.'

Our author is incorrect in stating that the 16th N. I. (Grenadiers,) hesitated till Colonel Renny's order '*Eighty-first load*, 'and the ominous ring of each ramrod, as it drove home its ball 'cartridge, carried conviction to the heart of the waverers—they 'sullenly piled arms.' (p. 99) H. M's 81st Regiment went to the parade with loaded rifles. It would have evinced bad generalship to have postponed the loading to the last moment when the loss of a few seconds may have involved the failure of the attempt.

It was fortunate for India that Sir John Lawrence, the Chief Commissioner, was at that time at Rawul Pindee, and that tele-

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graphic communication had been temporarily stopped; for when this *coup d'etat* was reported to him he disapproved of it, and said that had he been consulted, he would not have sanctioned it!

The Telegraph Department may be said to have been, under Providence, the salvation of India, both by its usefulness and its defects: for while it brought to Lahore the news of the mutiny at Dehli, it failed to convey them to Rawul Pindee; and subsequently to its complete stoppage between Calcutta and Lahore we may ascribe the success of the siege operations before Dehli, which were assisted by the vigour of Sir John Lawrence, unfettered by instructions from Lord Canning.

We shall not enter on the consideration of our author's narrative of the siege of Dehli, or of the outbreaks as they occurred at several stations in the Punjab. With the exception of a strong Punjabee bias, which Mr. Cave-Browne does not disavow, we have no fault to find with his work. The errors that exist are unimportant, while the style and matter are so attractive that they carry the reader most agreeably through the two duodecimo volumes.

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CRITICAL NOTICE.

Chesson and Woodhall's Miscellany.

During the last two years, or rather since the changes in 'Dickens' Household Words,' the result of which was the establishment of 'Once a Week;' and 'All the Year Round' in which is incorporated the old 'Household Words,' there has been an extraordinary increase in periodical literature in the mother country: almost every writer of the day now writes his story by instalments, and every kind of article, from a learned disquisition on the most abstruse subject to a highly spiced romance, now finds a place in a monthly or weekly periodical. The wave has passed on carrying all before it, and its ripple has even extended to India, giving an impetus to the literature of this country. One result amongst many is the birth and appearance before the reading public of two new monthly periodicals,—'Chesson and Woodhall's Miscellany' published at Bombay, and 'The Punjab Universal Magazine' at Lahore.

Our first feelings when we heard of these additions to our library, were of satisfaction, we anticipated sensible articles on Indian subjects, and thought that Indian periodicals would treat of India and its people; that their manners and customs, social and moral, their feelings, vices and virtues would be discussed with reference to education and progress, that some of these secular topics so all-important to the white as well as the black subject of this Empire would be dwelt upon in these new works, and we expected nought but good could come of such discussion, and welcomed them accordingly, but how deplorably we have been disappointed may be seen by inspecting the table of contents of any one number.

Our business is now with 'Chesson and Woodhall's Miscellany' only, and in lamenting that it is not what we wish it were, we are bound to state that no promises have been broken. In a review of the past year's work, which is in consonance with the past year's preface, we are informed that the style of the 'Miscellany' will remain unchanged; 'that the Army' (Bombay?) 'complained that they had no organ; the Church also wanted to be heard.'

We must then take this Magazine as we find it, a neat buff colored paper outside covers about one hundred pages of matter, on the first page we have generally a piece of poetry; further on at intervals may be found two or three other pieces, variously entitled according to the taste of the authors 'sonnets,' 'odes,' 'stanzas,' 'idyls' and 'lines:' sometimes to create in us a zest for these side dishes we are informed in a marginal note, that the author's age was only so and so; at other times a melancholy interest is claimed on the ground of the writer having died, soon after writing the 'ode,' we are left to draw our own conclusion as to whether the death was natural, or resulted from the effort of producing the 'contribution.'

We readily grant the truth of the heading 'Original Poetry,' this is patent, and requires no demonstration; but we do not think that originality is always a merit, and for third rate originality we should hail the substitution of selected pieces from our own glorious poets; that care and labour have been bestowed on these pieces, and that there is a fair amount of rhyme in them, we do not deny; but poetry is a wild flower, not a hot house plant, and poetical genius is a gift, not an art. Most of us have tried to write poetry at some time or other, but few have had recourse to type to immortalize their folly.

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We next come to the body of the Magazine, which consists of stories and tales, sometimes worked out to great length throughout many numbers, after the manner of the great novel writers of the day. In producing these stories the authors have certainly good example, but the mantle of Dickens and Thackeray is not on *their* shoulders, the author of "The Doomed House" cannot think that a nation is awaiting with interest the denouement of his plot, or the writer on 'Amateur Acting' suppose that any one, lay or professional, is looking for the next number to assist his studies in the histrionic art. No! When the real article can be obtained at a less price and with equal punctuality from England, why go to Bombay for an imitation of it? If the quantity produced is sufficient for the home consumption, it will surely suffice for the Indian demand, and if it does not, plenty more can be obtained at a better and cheaper market than the Indian.

At one time we felt almost kindly towards the author of one of these stories, we thought he had justified his good taste by retirement in the middle of his story; but no, after several months of silence this gentleman is to the fore again; the 'Raymond family' still exists, and Calcutta life of the present day is to be handed down to posterity in the record of its history.

The next part of this Magazine consists of romances where all the parties and the plot are in India, semi-Indian we may call them. The authors evidently know that India ought to be their theme, but they seem unable to conquer old predilections, they look back and hanker after the Sodom of love stories while they find India and the mutiny era replete with the requisites for their tales: the result is an unhappy combination of love, pathos, and India, mixed up with Cashmeer scenery, beauteous dark-eyed daughters, and a ride on the Peshawur course.

In a tale called 'Happy days in Cashmeer,' the writer dates his story from the occupation of Delhi by our Troops during the late mutiny. The King had been taken prisoner, with his surviving sons, his servants and retainers had fled, and the two princesses, the last of the house of Timour, were hiding to escape the vigilance of our soldiers: at last by the aid of a faithful follower they effected their escape to Cashmeer. We are told that once when these girls were walking about Delhi the European sentry was struck dumb by the flashing eyes of the princess our heroine; indeed his hardy manhood instantly obeyed the imperious look of the child as she drew herself up before him with royal bearing, and cast such a piercing look on him 'that he in an instant presented arms,'—a pretty idea enough, but what a lamentable ignorance of Mahomedans is displayed, when a Delhi Princess while walking abroad unveils herself in the public way to a gaping sentry, while, on the other hand, he is knocked all of a heap by the stare of a little black girl.

The above is a fair sample of the ideas that are worked out in this story; characters are drawn with a like want of appreciation of the subject, the feelings, the education, and position of the parties concerned; impossible thoughts are put into native brains, and absurd words into their mouths, while finally the heroine falls in love with and is married off hand to an English Officer whom she meets, while he is on a sporting tour in Cashmeer. There is a beautiful silence upon the matter of religion, we are not told whether he became a Mahomedan, or she a Christian, nor is any mention made of the marriage ceremony.

But though we are contented to waive, poorness of style, looseness of diction, and improbability in the plot, we cannot allow fiction to be pointed against an individual or a class without a passing censure.

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At the period at which this story is dated, the Deputy Commissioner of Delhi was perhaps of as genial a nature as any man in India, yet we are told that this official, through an obsequious dread of the Punjab Government declined to drink a peg *i. e.*, a glass of soda water with a little brandy in it! Does the writer really mean us to believe with this? or is it pure ignorance on his part? We will give him the benefit of the doubt, and concede that he seems to know as much of Punjab Civilians as he does of Delhi Princesses. Perhaps the writer did not refer to an individual in the above, but to a class, we assert however that the picture is as untrue in the one case as in the other. With the same animus we have a picture of the Punjab Government Secretary, a competitioner familiarly entitled a Wala, with the euphonious name of Mr Green Poppy; this gentleman has to write a reprimand to an officer in the Civil establishment, and while doing so, the delinquent's wife casually visits his office, reads the letter just written by the Secretary, and induces him to change the 'wig' into a letter, informing the offender that he has been promoted to a Commissionership; this is explained by the statement that the wealthy connections of the offending civilian had aided Green Poppy when he was in distress; and the lady having obtained what she wanted for her husband retires observing 'I know how to deal with a Wala—the vulgar creatures 'they can never face a lady.' Mr. Secretary Poppy is succeeded by one Blubber, who faints at the sound of a horse galloping up to the office. All this requires no comment we need not add to our extracts, the style speaks for itself, and probably no competitioner would trouble himself to answer such atrocious stuff.

We have shown that the writer of 'Happy Days in Cashmeer' understands neither his own countrymen nor native ladies, the scenery may be well described, and the 'Baboo' faithfully drawn, it would be hard indeed, if the author did not sometimes say a sharp thing or a true word. But taking the piece altogether, we must give it unqualified condemnation.

The next story on this cross-bred plan of love and India is called the 'Corpora Quadrigemina.' The writer is the fourth of four medical students who studied together and gave themselves the above title. His autobiography tells us that he and one of the others (for two died of dissipation) arrived in India, of course, just before the mutiny of the Bengal army; the friends soon separate and our author finds himself after some hair-breadth escapes attached to the Central India field force; he tells us a great deal of himself and a little of the mutiny, this little is however truthful; but a morbid love-sick vein runs throughout his narrative, and we are curious to see how he extricates himself from his position with two sweethearts, for unlike the author of 'Happy Days in Cashmeer' who tells us

'Tis well to be merry and wise,
'Tis well to be honest and true,
'Be sure you'r off with the old love,
'Before you'r on with the new.'

we find that the writer of Corpora Quadrigemina in looking for his lost 'Eva' finds her servant and falls in love with her, on the spot, though her antecedents were not the most spotless that could be conceived; she reciprocates his passion, and we very much fear that the aid of the grim monster death will have to be invoked to set matters straight, and then of course the native will suffer.

It is well remarked by Swift that men of great parts are often unfortunate in the management of business, because they are prone to go out of the common road, by reason of the quickness of their imagination; in proof of this,

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he desired Lord Bolingbroke to observe that the clerk in his office used an ivory knife with a blunt edge to cut a sheet of paper: 'whereas if he should 'make use of a sharp pen-knife its sharpness would often make it go out 'of the crease, and disfigure the paper,' and so with a writer, and more than all with an Indian writer, the crease must be kept to, we do not want clever writing but faithful life like pictures, that can only emanate from the pen of a calm and discriminating observer of human nature. The reader can judge by the following incident told by him whether the author is qualified by his knowledge of natives to write of them and their customs.

We will put it in as few words as possible; it has been already stated that the author had lost his Eva; without her all things were dark to him, life was a blank, and after making various plans to discover her, he formed the idea of entering the native town in the garb of a Hindoo Faqueer; so having obtained some 'holy water', and some salmon colored clothing, he disguised himself, proceeded to the bazaar to glean information of his beloved; having sat down there, 'I placed the two baskets of holy water before me, uncovered 'them, and exhibited the bottles of precious liquid packed in the leaves of the 'banyan; I feared much lest I should betray myself, and therefore determined 'on a very reserved demeanour and manner of speech, occasionally crying ''Allah' in a fervent voice, I attracted notice, and soon disposed of several 'bottles of the Ganges water.'.....At last three Mahomedan troopers approached our hero 'to purchase of the waters of paradise,' he greets them with 'Allah is great, take of the waters my son' &c &c. In the above short extract we have the astounding picture of a Hindoo Faqueer crying out 'Allah' while he displays Ganges water for sale! Why a Hindoo should praise the Moslem God, or a Mahomedan buy Ganges water, or what the water of Paradise is, we are not informed by this tantalizing writer; verily it is a fearful and wonderful jumble of ideas, and we cannot disentangle them.

We have now noticed the two longest contributions to this Magazine, in which has also been published some notes on Knight's Plays of Shakespeare by C. A. D. Gordon, which had already appeared in the 'Lahore Chronicle,' as might be expected, these are eccentric, and Mr. Gordon often comes to grief himself in his attempts to point out errors that he conceives the able author has committed. One or two good articles have appeared, evidently written by a man whose information about the Punjab exceeds his love for it, but of late we have not noticed any thing from his pen.

Captain Raverty's Dictionary has been again demolished by his able and untiring critic, who takes the opportunity of again refuting the hitherto pet theory, that the Afghans are descended as they themselves assert from the lost tribes of Israel.

Considering the size of the Magazine, we are surprised at the very few readable articles in it. We cannot buy a cake for the chance of there being one currant in it, and as we said before, we conceive the compilers have committed an error in adopting the line they have; we have shown that their few stories about India are unreliable, and for their instruction we cannot do better than conclude this short notice of their periodical by a quotation from Lord Bacon.

'The opinion of plenty, is among the causes of want; the great quantity of 'books maketh a show rather of superfluity than lack, which surcharge 'nevertheless is not to be remedied, by making no more books, but by 'making more *good* books, which as the serpent of Moses, may devour the 'serpents of the enchanters.'

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CALCUTTA REVIEW.

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THE CALCUTTA REVIEW.

ART. I.—*African Hunting from Natal to the Zambesi, including Lake Ngami, the Kalahari Desert &c. from* 1852 *to* 1860. By William Charles Baldwin, F. R. G. S. London: Richard Bentley.

IN calling attention to Mr. Baldwin's very pleasant book, we purpose taking the opportunity of saying a few words about the rising and interesting young colony which formed the base of his travelling operations, during the eight years he devoted to sport in Africa.

Our first duty is a very agreeable one, being that of introducing a modest, truthful, and entertaining author; and if we fail to do so in due form, we trust it will not prevent our readers from seeking a far more extended acquaintance with Mr. Baldwin than can possibly be obtained within the limits of a few pages in a Review. As the best mode of accomplishing this object, we have selected a few passages from his work for a place in the present article; but the book so teems with adventures and exploits of no ordinary kind that it demands a reading, the only disagreeable sensation attending which will be a regret that so long a time must elapse ere another visit to Natal, which is more than hinted at, can furnish matter for a second volume. The book is a credit to all who have been engaged in its compilation, and Messrs. Wolf and Zwecker have done their part in adding interest to its pages by the admirable illustrations they have furnished.

Mr. Baldwin proves himself as successful with the pen as the rifle, and if the book had been written with a view to a financial success, we should have to congratulate its author; but happily

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for Mr. Baldwin, he can claim our respect for a diligence not forced on him by circumstances but adopted, as he tells us, 'at 'the earnest solicitation of friends and almost promises made to many I left behind me in Natal.'

Our personal knowledge can attest to the disappointment which many of his fellow colonists (for he has long ceased to be considered as a traveller only) would have felt, and in all probability, would have expressed, had Mr. Baldwin returned from England without having redeemed his so called 'almost' promises. If our memory does not much mislead us, the promises were based upon the possibility of any one being found who could translate a Journal which, as our author says, was written sometimes in ink but often in pencil, gunpowder, tea, &c.

Mr. Baldwin is very candid with us, and we cannot do better than give his antecedents in his own words. He tells us:—

The love of sport, dogs and horses was innate in him, and says 'from the age of' six I had my two days a week on my 'pony with the neighbouring harriers;' but these amusements soon had to give place to the school boy's life, which being ended, the embryo Nimrod was transferred to the counting house of a Liverpool Merchant, the gradations through which were suspended somewhat abruptly by a 'comparison of notes with the 'junior partner arriving at the conclusion that quill-driving was 'not my particular vocation, nor a three-legged stool the exact 'amount of range to which I was willing to restrict myself 'through the sunniest part of life.'

This matter being arranged, our friend betook himself to learning farming in Forfarshire, but whether from antipathy to master or locality we have no means of learning, but we find him soon transferring his residence to a West Highland farm of some thirteen miles extent. To all except enthusiastic hunters this space might have been deemed sufficient to afford ample occupation for gun or dogs, with something for the salmon rod to boot, but its limits were too circumscribed for our hero, and though admitting he was very happy there, he longed for a larger field, and reasoned as follows:—

'Having no earthly prospect of the command of anything 'like a moor or a stud in the old country, I cast about me for 'some land of greater liberty (at least of foot), and had engaged 'a fine young Scotchman to go with me; but while debating 'whether Canada or the Western Prairies of America was to be 'my destination, two intimate friends, the sons of a neighbour-'ing gentleman, who were going to Natal, advised that colony.' He followed the advice, and there he arrived with friends, dogs and rifles in December 1851.

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Between Dr. Colenso, Mr. Baldwin, and the Great Exhibition, Natal has probably become better known within the past twelve months than during the fifteen years that have elapsed since it first became a British Colony. Between the years 1847 and 1850, considerable attention in England was turned to Natal as a new and promising settlement, but all thought of it speedily died out in face of the excitement produced by the gold discoveries of California. With news of rivers, the beds of which were of gold, reaching him, the roving Englishman was not likely to be fascinated by accounts of cotton growing, and it is not surprising if the Hand-book of Natal had to give place to the Guide to California. Men were not likely to care much about the means of reaching D'Urban and the Umgeni when their thoughts were absorbed with San Francisco and the Sacramento. But, notwithstanding the gold mania, there was in England a class of intending emigrants sanguine in the belief that the new Colony in South Africa did really offer advantages as a cotton producing country superior to any other British settlement, and second only to those of the Southern States of America. As the desire of visiting this favored land became more general, its accomplishment was fostered by a specious scheme of immigration brought out in England, which was successful in tempting some fifteen hundred or two thousand small capitalists to try an experiment promising the most splendid results.

Like so many similar enterprises, this was destined to prove a complete and unmitigated failure, serving as its only purpose to dissipate the idea that the Natal of that day was in any way a suitable field for the production of cotton. The scarcity of available labor was so clearly shown that the newly arrived immigrant of 1849 and 1850 would see miles along the banks of the beautiful river Umgeni white with unpicked cotton, and misery and disappointment depicted on every face. So thorough was the blight of hopes that agricultural implements, from the plough to the cotton gin, might be had almost for the cost of removal. Men arriving with the most approved mechanical aids found them not worth conveying the two miles from the beach to the Town. The usual result for which Colonies in success or non-success are so famous followed, the canteens alone prospered, while the little all of the newly arrived and intending settler was dissipated in his search for something to which he could turn his hand. It was while the unhappy colonists were mourning over these misfortunes, and searching for some means of extrication from the miseries engendered by them, that the news of the discovery of the gold fields of Australia spread through

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Natal, and resulted in a strain of every nerve to reach the Eldorado on the other side of the Pacific. It is not too much to say that every colonist who could leave his new home did so. The gold fields offered peculiar temptations to those who, having had a few years initiation into the hardships of life in a new colony, considered themselves prepared for life in its roughest form. The proximity of Australia, so far as length of voyage was concerned, had also its temptations;—all these supposed advantages in favor of the Natal colonist in the race for gold, led to a general exodus from the juvenile colony. It was during this time of disappointment and uncertainty that Mr. Baldwin visited Natal, but he did not stay to see much of it, for he at once joined one of the trading parties, (then almost the sole resource of the hard working man with a little money,) bound for the Zulu country, the adjoining coast territory to the North. At that time the Zulu country was under the independent chieftainship of one Panda, but now under that of his son Ketchwayo, and separated from the British territory only by the River Tugela.

The Indian reader may well be pardoned if he fail to realise the whereabouts of such localities, much more if he does not comprehend the extent of territory embraced in Mr. Baldwin's travels, which extended over the immense area described by Lake Ngami on the borders of the Damara Land in Western Africa, and to the North West of Natal by some 500 miles, while in a Northerly direction they reached the Victoria falls of the Zambesi in about 18° of South latitude. Ten years prior to Mr. Baldwin's arrival in South Africa, many an educated English gentleman could not have named the locality of Natal itself, while the word 'Zulu' might without blame have been taken as describing any thing animate or inanimate.

Even at the present time, were it incumbent on the uninformed reader to cite a precedent for his Geographical ignorance of the localities, referred to in the title page of the book before us, we could furnish him with one, and take for our purpose no less an authority than the heads of the War Department. It is a stupid anecdote but perhaps worth a passing mention. Not very long ago amongst military accounts sent home from the head quarters in Natal was one for farriery work performed at Pieter Maritzburg. The sight of this item exasperated one of the officials at home, who lost not a moment in dealing a reprimand, which left no more doubt of his zeal as a financial reformer than of his ignorance of South African geography. He wished it to be understood, it would be the last such account that would be passed, so long as the Government had arrangements for similar work existing in Graham's Town, whither for

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the future horses must be taken. This educated official little knew that the two cities are in different Colonies, and are some 500 miles apart, divided by a race, a portion of which has never yet been subdued by British arms.

Seeing that even our great authorities at home are thus ignorant regarding South African localities, Mr. Baldwin has done well in attaching to his book a map depicting the routes adopted in his several journeys. A reference to this shows us his first trip. It was as we have mentioned into the Zulu country under an able leader, one 'Elephant' White. Mr. Baldwin was desirous of meeting with this renowned sportsman, and was therefore fortunate in arriving while Mr. White was in D'Urban, and at the time preparing for a trading expedition amongst the Zulus,—an expedition for which Mr. Baldwin eagerly enlisted. In about three weeks the expedition started including nine hunters, but it turned out a most calamitous affair, for 'out 'of nine hunters who went out full of vigour and hope in all the 'ardour of enterprise, Gibson and myself alone returned, enerva- 'ted and prostrate after months of insensibility in Kaffir Kraals.'

Thus in his first trip Mr. Baldwin lost nearly all his earlier companions of the gun,—though not his leader—Elephant White (the cognomen Elephant was universally applied to him as being at once necessary and expressive) was considered second to none as an experienced hunter and colonist; it is therefore to be wondered at, that he should have been willing to lead a party to a district so famous as St. Lucia Bay has been to every Africander for the last hundred years as a nursery of fever, and during the hot season fatal to almost every European who dares to face it. The whole of the coast districts north of Natal present the same dangers to Europeans during the summer season; they abound in swamps and lagoons, and the fever produced partakes much of the character of the jungle fever of India. The whole of the description of this first trip is well written and interesting, and the journals must have been more carefully kept than in the later years, perhaps the novelty induced him to take memoranda of incidents which in after years were considered unworthy of mention—for instance, he says, 'my occupation was to shoot bucks, 'ducks, peaus (wild turkies) or any thing we could get for the 'party, and I soon got into White's good graces by my success 'and perseverance, and the older hands were very glad to be saved 'the trouble.'

In health and spirits the party set out from D'Urban. If the nine hunters differed as much as the raw recruit did from his leader, they must have presented a strange appearance. Mr. Baldwin says Elephant White stood 6 feet 4 inches, but we

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doubt if our author would measure 5 feet 3 inches, although the excellent portrait attached to his book makes him appear of a medium height.

Each man had to shoulder his gun and carry his allowance of powder until clear over the Border, to reach which entailed a seventy miles walk, a formidable undertaking for a new colonist in the hottest part of the year and when the rivers were swollen by recent rains—quite enough to make a seasoned colonist growl at the regulations which rendered it advisable to apportion the ammunition. In those days the regulations as to the transport of guns &c. were very strict, and even at the present time an official would require proof as to the *bonâ fide* intentions of a party ere he would allow a waggon found to contain guns or ammunition to cross the Tugela. Mr. Baldwin referring to the weather the party had to contend against, alludes to 'cold soaking rain at nights'; if these were general, the season of 1851 must have been an exceptional one, for although the summer is the wet season throughout Eastern Africa, it is rarely attended in Natal with twenty-four hours consecutive rain, but almost every afternoon closes in with a terrific thunderstorm. It is the evaporation after these during the hot nights common at this time of the year, which renders exposure so dangerous in all parts of Natal, but especially near the coast where the bush is dense.

However, the party improvised arrangements to meet their difficulties with what success the reader may gather from the following:—

'We tried to make ourselves more comfortable by fencing on 'the weather side and cutting a deep trench round between the 'wheels, as the water came in more from underneath than 'above; but on wet nights, do what we would, we generally 'found ourselves in a pool of water in the morning—a lot of 'Kaffirs at our feet curled up like dormice in their blankets, and 'generally sleeping through everything, and a host of wet and 'dirty, shivering, dreaming dogs on the top of us. The grass 'which grew to a tremendous height was so saturated that one 'might just as well walk through a river, so there was no use 'in putting on dry clothes in the morning. Three were snugly 'housed in the waggons, and six of us had this fun to endure. 'Occasionally some of us tried the boat waggon, but we found 'it like a cage I have heard of, made by one skilled in the re-'finement of cruelty, in which there was no possibility of either 'standing, sitting or lying, and eventually, I believe, we all 'gave that up as being though dry infinitely worse for a contin-'uance than any amount of rain.'

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The party seems to have fared better by day than by night, for we read of no complaints of scarcity on this trip, indeed the variety provided equals the novelty, and we are almost led to believe that every thing which came within gun shot range was found suitable for human food. We suspect the truth was, no pampered appetite rendered unwelcome the breakfast or the supper, though it might be of seacow or elephant. It required no Soyer to render such dishes either palatable or digestible, and we are told that 'a young Hippopotamus is 'very good food, tasting something like veal,' and in another place we read that 'Elephant's heart is very tender and good, while the foot is when baked very glutinous and not unlike brawn.' After such discoveries we may be allowed to question how far birds' nests or sea slugs are, as the Chinese maintain, the greatest delicacies in the world.

We will now follow the trail of our sportsman to St. Lucia Bay, whither only five of the party went for sea-cow ivory. On the road Mr. Baldwin tells us he was initiated into the art of trading with the natives, that he bought an ox for four picks or hoes valued at about 6s. in those days, but not now to be obtained, as Mr. Baldwin fancies, by the Kaffir at 1s. 9d. each; as recently this kind of agricultural implement has been one of the articles of Kaffir use that has been selected for high taxation and now pays a duty of 1s. 0d. each. This duty bearing on the native population entirely was one of those adopted to raise a fund to meet the expenses of introducing the first few batches of Indian Coolies, to employ whom the planters were driven, owing to the determined hostility of the Home authorities to the institution of any plan which should directly or indirectly compel the Kaffir to labor for the European. While a tax of this nature adds materially to the Revenue, it does not sensibly press upon the native, for a Kaffir pick will last a considerable length of time, it is merely an oval piece of well beaten iron decreasing in thickness from the centre to the edges, and even with its present duty is available at a much lower price than that at which the Kaffir could produce it.

Mr. Baldwin's trading must have been of rather an amateur kind when he tells us he could not buy any meal to make porridge for himself and two friends until he tore up his silk pocket handkerchief into lengths for Kaffir head ornaments 'having forgotten to bring any beads or brass wire.'*

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* Two favorite articles for Kaffir use as ornaments; indeed the nation may be said to possess a mania for beads of every color and shape, and are very fastidious as to the ruling fashion in their investments.

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It is this sort of candour which makes the book so readable, indeed one of its greatest charms is the air of simplicity that runs through it. The following is one of numberless instances in which we notice this feature.

'The Kaffirs all left us, and I fell asleep to be suddenly 'awaked by Gibson in a great state of alarm bolting up the 'hill and calling loudly to me to follow. As soon as my eyes 'were open, I saw a huge buffalo bull charging right down 'the hill towards me pursued by all the Kaffirs. He came 'at a headlong pace within twenty yards before seeing me, 'when he hesitated an instant, dashed into the reeds, and 'came broadside past me within twenty-five yards, at a brisk 'trot, knee-deep in water, making it fly all over him in a shower 'of crystal. I fired, and luckily for it was a bad shot, broke 'his spine, and down he fell bellowing like a bull-calf; the 'Kaffirs rushed in pell-mell and drove twenty assegais into him 'and finished him, complimenting me I suppose much on my 'prowess, though little credit was due to me, as I must confess 'to having felt very much alarmed at the suddenness of the 'whole thing, not having known in the least, what I was placed 'there for.'

Probably there is no nation or class on the face of the globe that appreciates more highly a 'good shot' than the Kaffir, trained as he is from his boyhood to the correct use of the assegai. The Kaffirs are foremost in admiration of any sportsman who proves himself a correct judge of distances, and this is admittedly Mr. Baldwin's forte and must have many a time saved his life in South Africa. We know of but one gentleman there, an officer in the Engineers, who proved his superior in this, but he was not aided as Mr. Baldwin is, by that greatest of all requisites excessive coolness when taking aim, to this chiefly may be due Mr. Baldwin's success in the 'veldt'. And that he is aware of it we notice for—when speaking of Dr. Livingstone's estimate of the Falls of the Zambesi (almost the spot where he first met Livingstone) and pointing out how that traveller had underrated their magnitude which the learned Doctor admits to be likely—Mr. Baldwin says 'I have been for years constantly judging and stepping off distances—for instance, from one ant heap to another, 'and have hardly ever shot any game on the flat that I have not 'previously in my own mind judged the distance, sighted accordingly, and if successful afterwards stepped it off so that I can 'now form a very good idea. It is astonishing what wide shots 'others make, who have not been in the habit of so doing; objects 'look very much nearer than they really are owing to the clear-'ness of the atmosphere.' Our hero does not tell us how many

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bets he has won through his superior judgment, but we know it was with him a challengeable subject.

The book is so brimful of adventure that it is puzzling what to select. What with sea-cows, buffaloes, elephants, and crocodiles, each providing a distinct class of dangers and exploits, every page contains life enough for a separate volume. It is generally considered that the buffalo is of all sport in South Africa the most dangerous, and Mr. Baldwin seems to agree in the opinion. We know it to be the one the Kaffir most fears, and this is not to be wondered at when it is remembered that the natives go in parties and the buffalo when irritated charges indiscriminately.

This St. Lucia Bay trip was undertaken for sea-cow hunting, and therefore the first few chapters have chiefly reference to this peculiar sport. Mr. Baldwin's party adopted the only really successful mode, by taking with them a boat to shoot from; it being admitted that all attempts to shoot the animal from the shore fail to provide sufficient ivory to remunerate a party.

One adventure is recounted where a sea-cow attacked and nearly swamped their boat. It is not unusual for the animal thus to rid himself of his enemy. We have ourselves seen a sea-cow, when wounded, take a boat between its teeth by the gunwale, and fling it into the air, thus dispersing in a most effectual manner those who were causing him such annoyance.

Sea-cow hunting will always prove attractive sport; besides it is profitable, the ivory, which is used extensively for quadrants or other mathematical instruments requiring ivory by nature in the form of a perfect arc, being worth from 12s. to 18s. per lb.

Sea-cow hunting though good sport is attended by really hard labor when followed as a business; much is requisite before the ivory is obtainable. Mr. Baldwin tells us the towing to shore the carcases of the cows shot, each morning before breakfast required his being 'three fourths of almost every day all depths in the water' and exposed to scorching suns, and this sort of life soon introduced him to that fever which ere long terminated the lives of seven of his companions.

'It was no wonder then, that I was taken ill on the 10th
'(February) with racking pains in my head and giddiness and
'faintness, and was left behind at a Kaffir Kraal with a small
'bag of rice, and my Kaffir, Inyati (Buffalo) a big six foot
'fellow to attend to me. He was very young, and a magnifi-
'cent specimen of a savage; he looked after me like a child and
'nothing could exceed his kindness and attention to all my
'wants, and he risked his life more than once in my service.
'Monies told the captain of the Kraal to give me milk when I

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'required it, in return for which he would give him a blanket. 'The captain promised to do so but never brought me a drop, 'and Inyati used to go into the cattle-kraal in the middle of 'the night and bring me my tin cup full holding about a pint, 'and see that I drank every drop, lest they should find him 'out, in which case his punishment for stealing would most 'probably have been death, the only punishment they know of. 'He would pass the day in scouring the country for wild 'fruits.'

Mr. Baldwin was fortunate in his servant on this occasion; and as a general rule every white man will be, who properly treats a Kaffir, but as we find our author expressing various opinions regarding the race in different parts of his book; we shall take a separate opportunity of referring to the question and giving the reasons why we hold favorable opinions regarding the qualities of these singular people, who, as Mr. Baldwin admits, have obtained a bad reputation from the accounts given by travellers, who were unable to understand their peculiarities. On recovering from this illness our hunter again betook himself to his favorite companion, and the gun so handled maintained its former reputation, but ere long it had to be laid aside for the arm that had so often raised it for unerring execution was unfit to wield it longer. Under these circumstances, a return to Natal was decided upon, but we learn little of what occurred on the 'trek' for illness and fatigue prevented a continuation of the journal. A twelvemonth had to be devoted to the means of gaining convalescence, aided by the admirable nursing of a Mrs. Collins, the wife of a gentleman who may be remembered by some in Calcutta as being here in 1860, when sent on a mission from Natal, to carry out the wishes of that Government regarding the Natal Coolie Act, and who we know returned to the Colony imbued with the highest regard for many he had met in this city and ever ready to bestow on it the title of the City of Palaces, and never failing to bear witness to the courtesy he experienced from all those with whom his official duties brought him into contact.

Though never a 'heavy weight' some idea of the effect of the swamp fever may be gained by reading that when Mr. Baldwin was able to rise from his bed of sickness he weighed but 5 stone 11lb.

After this we find him spending two years cattle dealing on a high range of table land near the coast, and known by the Kaffir name of Inanda, where his usual stock was 600 head varying in value from 10s. to 40s. each. And getting tired of what he calls a horrid, weary, solitary, monotonous life, though

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sometimes selling as many as 40 oxen per day; shut up the establishment and again went into the Zulu country.

Having followed Mr. Baldwin in his first trip, it is not our intention to restrict ourselves to the order of his book, as we are desirous of alluding to a few of the many interesting subjects to which the volume directs our thoughts. Besides personal adventures and matter interesting to the sportsman, there is much in Mr. Baldwin's book that will be welcome to the naturalist, the geographer and the ethnologist; while the general reader will be amused and instructed by what he reads of Kaffir life, and of tribes even more extraordinary than the Kaffir, for instance, the Batokas, whose taste is unique certainly and described as follows:—

'They are horrid frights; it is their custom to knock out 'their four front teeth, and to file a small space between each 'of the under ones, and a more hideous lot of grinning wretches 'I never saw. I heard as a reason for their thus disfiguring 'themselves that they were anxious to resemble an ox as much 'as possible, that being in their estimation, the noblest of ani- 'mals. All the natives are immensely fond of cattle, but this 'is carrying their veneration rather far. I have also heard 'that they have a horror of looking like a guagga or Zebra. 'Remarking on one of my fellows, they said he would be good 'looking only for his front teeth. The teeth of a Kaffir are 'splendid, snow white, sound and even and set off the rest of 'his face to great advantage.'

And as another specimen of the different races he gives the following description of old Ia, one of his servants:—

'She is one of Pharoah's lean kine, unusually tall, straight as 'a kitchen poker; long, lean, scraggy neck; the smallest little 'pig eyes in the world; no nose, but two huge nostrils; high 'cheek bones, sunken cheeks, wide mouth, very thick lips, just 'the colour of the mulberry juice, low fore-head, and small 'head. I believe she has about the eighth of an inch long of 'wool on the latter, but as it is always swathed in a handker- 'chief, I am not certain. She is, I believe, somewhere between 'fifty and sixty, and you seldom see her without a short black 'pipe in her mouth. She wears ear-rings, necklace, and armlets, 'and the gaudiest-coloured shawl and handkerchief. She is of 'a yellowish copper colour; her breast as flat as a deal board and 'altogether about as plain, not to say downright ugly, as 'nature could possibly make her; but with all these perfections 'she has in common with all her race, the most perfect, delicate- 'ly-formed and smallest hands and feet in the world. This description is not one whit over-drawn; in fact I have not

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'done half justice to her eyes. I believe she can see as far as 'any one thought. I will defy any one to tell me what she sees 'with, as her eyes are only just discernible, not a sign of a 'brow or lash near them—slightly bloodshot and watery from 'exposure to the fierce sun.'

The every day portion of African life will always be worth the describing, and to those who all their lives have remained at home, worth reading. The book before us contains many a pleasant passage relating to the outspan and the customs of waggon life, which after all has its strong fascinations, and to many, a fascination sufficiently great to render a month in even a colonial town tiresome. The charm attendant upon a life purely untrammelled must be felt to be understood.

Mr. Baldwin is a great admirer of Natal, he says: 'I have 'travelled far and wide in every direction into the old Colony 'through the Free State and the Transvaal Republic, but Natal 'is the garden of South Africa.' We consider this indisputable. There are few more beautiful parts of this garden than those the traveller would have to pass through in going from the Inanda to the Zulu country—the whole district is a gigantic park of excessive beauty, and sufficiently diversified to prevent any feeling of sameness or monotony. After leaving the Inanda, you encounter no very high lands but traverse a series of gentle undulations; the land is grateful to the traveller as ministering to his chief wants, being covered with long grass interspersed with trees and fruits of various kinds, amongst the former of which abounds the beautiful and fragrant Mimosa.

The district is in common with all the coast lands of Natal admirably watered, while the kloofs or ravines are the nurseries of buck of such variety that a list would prove tiresome. Some of these kloofs are very grand. They are also excessively useful, and but for their number the game in Natal would soon be exterminated. They form the only safe refuge for an animal when pursued by the relentless Kaffir hunter, whose well aimed assegai is eminently successful in wounding but not in killing suddenly. He trusts to his dogs, well trained and of great fleetness, to complete the work, and although the buck will sometimes run bleeding a long distance, the dogs are generally certain of their prey if no kloof be accessible. There are many parts in the neighbourhood of the Umhloti which would compare advantageously with the choicest parks that form the object of pride at home when surrounding some lordly mansion, and on which perhaps vast sums have been expended to effect by art what nature has left capable of improvement. On the Umhloti there is a village which though presenting no attraction

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in itself is most beautifully placed, and does credit to the taste of a small body of settlers who came out in the earliest days of the Colony under the charge of some Wesleyan Missionaries; and from the convenience of its position it has now become the centre of considerable enterprise. Within ten miles of Verulam are some of the finest sugar estates in Natal, and some who have travelled in other sugar producing countries maintain that to the eye, cane inferior to none in the world is to be seen there.

Verulam is generally made the first halting place on the trip from D'Urban to the Zulu country. The village is built on an eminence overlooking the river, at the point where is now the main drift, and on the direct high road. It is at the present day provided with a small but neat hotel, which has become a general meeting place for traders coming in or going out of the Zulu country. At the time when Mr. Baldwin made his second trip no such convenience existed as this accommodation house affords. We doubt whether the strict inhabitants would in those days have tolerated the institution. We know some of the good people of the village would have been horrified at the bare mention of such an establishment, for at that time the loose system of conducting the few road side houses that existed had gained for them an unenviable notoriety. Indeed strange and improbable as it will appear to any who have not known a small colony in its primitive days, we may mention that it was by no means uncommon some years ago for the traveller to enter a roadside house and finding only a kaffir in charge receive in reply to the question '*Oopie boss*' (where's your master) a piece of paper requesting the visitor to supply himself with the desired refreshment from a certain cupboard and to give the Kaffir the payment. Of course all such customs have long since been changed, but those were days when every European was so well known even to the Kaffirs that his nickname, or more properly descriptive name applied to him by the natives, would inform the returning landlord who had called in his absence. The Kaffirs are very happy in their selection of names, always seizing upon the most distinctive characteristic in a person's appearance or manner as the basis. For instance, two friends of the writers would be known by the Kaffirs in all directions, the one very tall and thin, but particularly upright, obtaining a title which as the Zulu words might be translated is 'as the smoke goes out of the hut when there is no wind;' the other whose combined shortness and corpulence rendered his appearance almost grotesque, passed under the name of 'Pumpkin'. Mr. Baldwin did not stop in Verulam, but tells us he proceeded to a friend's on the cotton lands a few miles further.

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These cotton lands comprise many miles, and were originally so called under the plans of the district as included in the scheme we have before referred to. European emigration to Natal in the first instance was greatly stimulated by the scheme known as Byrne's, and remembered only from the amount of misery brought upon those it entrapped. An adventurer by the name of Byrne, having obtained immense grants of land in Natal as soon as it came under British rule, returned to England and sounded the praises of the colony as a cotton producing country. The cry being successful, he brought out a scheme suited to the wants of the emigrant possessing some little money. Byrne undertook the shipment and conveyance of the emigrant to the colony, and the protection of him until he could locate himself permanently; for the cash paid in London the man was to have a selection of a certain sized piece of land from whatever portion of Byrne's grants remained un-allotted; and these were described as suitable for various agricultural productions, but to the growth of cotton the major part was supposed peculiarly applicable. Mr. Byrne in extension of his charitable and philanthropic object undertook to supply another want; there being in Natal at that time no banks, the emigrant would have been obliged to take with him his little all. Mr. Byrne saw the evils likely to accrue on the voyage, and immediately on landing from the existence of too much ready cash amongst the passengers and to lessen the danger, he established a private bank in communication with his agents in the colony. He received the amounts in London and his agents were to pay the same in Natal. Unless we remember the class who emigrate as small agriculturists, it will seem strange that such a mark of confidence should be accorded as that Mr. Byrne enjoyed, and which unfortunately for the emigrants was entirely misplaced. On the emigrant's arrival he found that no arrangements had been made in the colony at all, he was in many cases unable to gain possession of his land for months, and when he received the allotment, not a vestige of any thing was there to hand—sweet potatoes or mealie meal had to take the place of those comforts of life which only civilisation calls into existence, and even necessaries were unobtainable for love or money; and to crown all his troubles, the agents of Mr. Byrne had such differences with the great benefactor at home, that they refused to recognise any of the orders for repayment of those funds which he had taken charge of in London. These disagreements soon ended in the failure of Mr. Byrne and the misery of the hundreds he had so misled.

After leaving these 'Cotton' lands and resuming the journey, the next few days were diversified with sport, hair-breadth escapes

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and accidents, amongst others, Mr. Baldwin had the wheel of a waggon containing 3000 pounds weight of picks pass over his thigh, and he seems to have escaped a broken bone most wonderfully. When he had pretty well recovered, the party crossed the Tugela, which forms the northern boundary of our possessions. It must have been a motley group, what with Kaffirs, Hottentots, men, women and children of all sorts, colors, and sizes, who 'having got possession of a case of gin spent the most noisy, quarrelsome, abusive night I ever witnessed.' Some weeks of this indescribable life of a half trading, half amateur trip in the Zulu country brought the party to within sight of Panda's hiil, where they had some good sport with buffaloes, prior to paying a visit to the fat old chief of one of the most important of the Kaffir races.

It is customary to the present day for traders or hunters to pay a visit to the head kraal. Panda in former times exacted it as a right. Probably he did so not merely as an acknowledgment of respect due to his rank, but as a means of enriching himself, and this being thoroughly understood, it was usual for traders to supply themselves with a few articles suitable for presents for the old monarch. The most gorgeous blankets (rugs as we should call them,) having a vast preponderance of the regal color, scarlet, were often selected as an introduction likely to ingratiate the giver in His Majesty's favor. We saw some of those rugs, which had the honor of a special mark of preference by royal selection of no niggardly kind, an honor expensive and not over pleasing to the trader. They certainly reflected credit 'on the knowingness' of the person who had them manufactured from designs of the boldest character, such as representations in the most staring colors of those animals which are best known to and feared by the Kaffirs, of course depicted in the most extraordinary if not impossible attitudes. Such little marks of attention are never lost on the Kaffir chiefs, and are valuable if only to obtain for the traveller a security for his greater protection. Scarlet being the regal color, woe be to the Kaffir who wears it in the Zulu country unless he belong to the royal family.

The promised visit to this chief ended in an unsatisfactory manner and is thus described :—

'We all saddled up early to pay a visit to Panda. His 'Majesty however was asleep, and his attendants did not dare 'disturb him. After remaining some time, we were ordered to go 'to the gate and wait there, so we took huff and rode away 'without seeing him, broke up our camp, made a great bonfire 'of all the huts the Kaffirs had erected, and once more proceed-'ed on our journey. We had not gone more than two miles 'when one of Panda's captains came up in a great fury

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'swearing awfully by the bones of Dingaan and Chakà, the 'much dreaded and cruel, and of other renowned warriors of the 'nation, that if we did not immediately turn back, an impi '(regiment 500 strong) would be down upon us and kill us 'instanter. He was in a great state of excitement, would not 'hear of our outspanning or delaying our return a moment, 'said the signal for attack was crossing that water course (point-ing to a running stream not twenty yards ahead); and as 'we were entirely in their power, we thought discretion the 'better part of valour and did as we were ordered, looking very 'foolish in both our own and our followers' eyes. Panda had 'always opposed our wish to go that way, and it was bearding 'the lion in his den, and most foolish and misjudged on the part 'of White to go in direct opposition to his orders. On passing 'his kraal gates we went through two lines at least 200 yards 'long of magnificent men armed with assegais, shields, knob-'kerries and knives in close file waiting only the slightest 'intimation from his majesty to annihilate us instantly. It was 'a nervous moment; I did not half admire it, and all our Kaffirs 'were in the utmost alarm; a dead silence was maintained by 'every one, and poor White was awfully annoyed and vexed 'about it. To do him justice, I believe if any of us would have 'stood by him, he would have infinitely preferred shooting half 'a dozen and being spitted himself to the disgrace to white 'men of having to obey a Kaffir, but it was all brought on by 'his own obstinacy. Likwási the prime minister, came down 'to us—a fat, good tempered, jovial fellow—made the peace, and 'eventually all was settled amicably; but our long meditated 'route was peremptorily forbidden, and we were obliged to rest 'satisfied with the shooting Panda thought fit to give us in the 'Slatakula bush, where, the old fellow knew well there were 'rarely any elephants worth shooting. He is a wily old savage. 'On Clifton wishing to see him out of curiosity, though he 'sent many presents to him, the only answer he sent was, '"I '"have nothing to say to him; does he think me a wild beast '"that he is so anxious to see me? I wont see him;" nor did he 'see any of the party but White and the interpreter.'

The country is now so frequently entered that European sports-men do not always pay a visit to the sovereign but traders think it to their advantage to keep in favor with the reigning chief principally because they have to send down herds of cattle, taken in barter, and a stranger's cattle are sometimes detained if the king or any of his numerous dependent chieftains consider the owner has exhibited a too great disregard for His Majesty's authority.

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The Kaffir blanket is an useful article, it appears to serve not only for barter but as a means of compensating a native for injuries inflicted. Thus we read—'One Kaffir got a bullet through 'his foot, and as Edmonstone got the credit of it, he was obliged 'to give a cotton blanket, worth 3s by way of compensation.' In other places we read of blanket compensation being accepted as an inducement for going into danger.

Mr. Baldwin has left us in the dark as to his real opinion of the Kaffirs, not from his avoiding the subject but from the multiplicity and variety of the opinions he expresses. In one place he represents the Kaffir as the most trustworthy of servants, in another he pronounces him an incorrigible scoundrel. A lengthened residence amongst the Kaffirs, both Amapondas and Zulus, has given us a good impression of the people, and we believe that it is only from the want of suitable legislation that the Kaffirs of Natal are not an useful, trustworthy and an industrious people. We go further and say we are convinced that few would be as good subjects as they are even now, if placed as they are under a Government which holds out a premium for idleness. Idleness has especial charms for a race that has never been trained to any form of industry. The policy pursued towards the Kaffirs under British rule in Natal is most extraordinary, and has done more to retard the advancement of the Colony than anything else, but it is not within the limits of this article that our views could be fully expounded, nor is it likely the subject would possess sufficient interest to the Indian reader to justify our doing so. But that the government of the Kaffirs of Natal is radically wrong is shown by this fact, that Indian coolies are brought there to do the planter's service, when tens of thousands of idle Kaffirs are to be found in the immediate vicinity of the same plantations, and the native labor would be infinitely more serviceable than the imported. A great premium to their idleness is the existence of what are known as the Kaffir locations, four or five immense districts containing some of the choicest land in the colony. When first Natal was occupied by the British these allotments were made, and although yearly the opinion gains strength that they are a source of evil and not of good, the Government fears to deal with the question. On these lands any Kaffir may squat, he may grow any quantity of mealies (Indian corn), he may rear any number of cattle, the only payment he has to make is the same as if he lived on other lands viz., the hut tax of 7*s*. per year irrespective of the number of its occupants; thus he is only nominally taxed, he can sell the mealies or other produce, reared not by his own industry but by that of his wives, his time is spent in hunting and in bartering or

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selling any produce he becomes possessed of. His only labor being that of grinding his tobacco, for of snuff he takes an inordinate quantity made more pungent by the addition of a herb. A Kaffir rarely goes one hour even when at work without taking his snuff. And never leaves off until his eyes stream with water. He adopts a most cleanly mode in taking it—he makes out of bone a long handled spoon with very small bowl, and in this he conveys the snuff to his nose avoiding the use of his fingers in the European fashion. His daily supply is sometimes carried in a most extraordinary manner, having a large hole in each ear he carries his box (usually a common English made needle case) on the one side and this spoon in the other, the handle of the latter doing duty in another service as a comb, being finely tapered into a kind of three pronged fork of miniature dimensions; with it he has his hair dressed, for the Kaffir never dresses his own hair, the operation is performed by a reciprocity of service.

While on the subject of Kaffir habits, we should especially lay stress on the great difficulty presented by the fact that nothing will induce the race to work continuously whether the occupation be light or heavy. Your best servant will decline to stay with you, let the temptation be ever so great that you may offer him, if he has made up his mind to return to his kraal. That you have been the best of masters is no reason with him why he should save you the inconvenience arising from his departure and which he perhaps well knows to be excessive. The same complete ingratitude manifests itself in every way, and it may be doubted whether the Kaffir ever really cares for an European unless it be as a child—for Kaffir nurses do evince an extraordinary love for infants. Many persons have placed Kaffirs in the Missionary and other schools, have dressed them in European modes, to see them attend for a limited time, and then return to their kraal, and divest themselves of every habit or article of dress adopted in the school. The government has had ample proof of this at the termination of the Frontier war. Moshesh was induced to send his two sons to be educated in the Cape Town College; while there they dressed and associated with all classes of society as Europeans, but immediately on returning to their country, and that after many years residence in Cape Town, they adopted the primitive habits of their countrymen.

A more absolutely lazy man does not in all probability exist in the world. The Kaffir's incentive to industry is only one—the obtaining sufficient money to buy the requisite number of cows required by the father of the girl upon

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whom he has set his mind ere she can become his wife. Generally ten cows when worth about £3 each is considered a fair value. The first wife secured, it may be with or without her consent—it is not material—for he has full power over her, in exercising which the father is bound to support his son-in-law, the husband is on the road towards the possession of a second wife by a similar process, and in this he has far less difficulties to contend with, for he has a wife slaving for him, and though it may not be absolutely derogatory for him to add to his wealth by some exertion on his part, yet the temptation is strong to rely only upon his wife's industry to enable him to obtain a second, when by the joint labours of the two wives he will have but little difficulty in raising the means of acquiring a third and so on *ad libitum*. It is no uncommon thing to see a gray haired Kaffir buying a wife of the same age as the daughter of sixteen he sold yesterday. Perhaps no slavery in the world is so complete as that in which the Kaffir holds his wives, the native law is so strong that he entertains no fear either of disobedience or unfaithfulness in his wife. This system of polygamy is that which Dr. Colenso has through good repute and through evil repute always upheld. Many worthy men who understand the question equally well with the unhappy Doctor, and possess a little more of Christian charity in their hearts think it a disgrace to British rule that such a thing should be tolerated under British rule, and they would to-morrow strike a blow at its existence within our borders by taxing in increased ratio each wife after the first. It must be remembered that Natal has not been taken by the British from the Kaffirs in the same way as British Kaffraria; nor is there any thing in common between the present inhabitants of these two portions of our South African possessions. These latter are as warlike, as given to theft of cattle, and as cunning as the Zulus and Amapondas are, docile, honest and open. The experience of Kaffir wars in the Cape Colony has shown the frontier tribes to be no mean enemies, and in all probability, had Sir Harry Smith's policy been continued to this day, wars would still be a source of misery in the Eastern province. There is nothing in common amongst these tribes of Kaffirs or the country they inhabit; language, appearance, mode of life, tastes all differ as much as the fastnesses, from which our troops could never drive the Cape enemy, differ from the open lands of Natal. A great misunderstanding prevails on this point even amongst those who might be expected to be better informed; however, we trust it will be distinctly understood, that in using the word Kaffir in the present article, it is intended to apply

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solely to those of Natal, for we see Mr. Baldwin (we suppose to render himself more intelligible to the general reader) has used the one term Kaffir for all the natives he has come in contact with, even including some which do not belong to any section of the race. In one sense he is right for Kaffir simply means unbeliever, a man who adopts no form of worship whatever.

When the British first took possession of Natal it was thinly populated—its few chiefs were unimportant while one tribe owned a white man as its leader. Situated as the colony is between the Zulus and Amapondas these two rival and hostile people made Natal a common battle field, while the petty chiefs there with but few followers were powerless against either race; the poverty of these people offered no temptation to their neighbours in raids for cattle, but the few Dutch boers originally in the colony, but now almost entirely dispersed over the Free State and Transvaal republic, were never long free from annoyance from the powerful Kaffir chiefs on the North or South of them. Thus our taking Natal, while injuring none for the locations have provided against this, has preserved peace. When the British Government allotted the immense locations to which we have alluded, there was not even the hut tax, and these locations were looked upon as a kind of compensation to the people whose country was taken. Thus one tribe whose lands bounded the beautiful bay of Natal were allowed their selection when the Government made crown lands of those bordering on the sea, in many cases the exchange was beneficial to the tribes so located, but in this one it led to its dispersion, for singularly enough fish formed the staple article of food with this particular tribe, and being driven inland entirely changed the habits of the people. We say singularly, because it is the only tribe of Natal that does not entertain the greatest abhorrence of fish, so much so that a Kaffir servant dislikes even to cook it for his master.

After a few years of English rule it has been shown that the Kaffirs so value the benefits derivable from British occupation, that yearly large numbers escape from their chiefs both Zulu and Amaponda to take shelter in Natal. Here they can dwell in safety, with opportunities of improving their condition; whereas amongst their own tribe they are merely slaves to their king to fight his battles or do his bidding, of course through a gradation of chiefs and thus rendering more oppressive a rule bad enough even for those attached to the highest tribes. Besides, to this day no Zulu's life is safe on any occasion of mourning or rejoicing amongst the Royal family, for a certain number of men are always executed on such occasions, and the

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selection depends merely on the will of the sovereign.* From the advantages afforded by British occupation the population which was differently estimated in 1847, but generally at from twelve to fifteen thousand is now supposed to be upwards of two hundred thousand. The Tugela war, fought on the extreme northern boundary between two rival chiefs, sons of Panda, added immensely to the number of refugees in Natal. The horrors of that war are almost past belief, but so many Englishmen have borne witness to what they saw that the facts mentioned by Mr. Baldwin may be taken as in no wise exceeding those perpetrated on that occasion. The victorious army was commanded by an Englishman a Mr. Dunn, who is even now friendly with, if not a kind of adviser of Ketchwayo. This gentleman has lived in the Zulu country for many years and is greatly respected by the people. Ketchwayo's enemy was his eldest brother—his other brothers being then too young to be feared, but it is now his greatest desire to obtain possession of these two boys. They are, however, under the protection of our Government, being placed in the Bishop's College in Pieter Maritzburg, and to each demand which Ketchwayo makes for them, the authorities reply they are at liberty to leave whenever they choose, but having been informed as to the request, they desire to remain where they are. Nothing but a fear of British strength prevents his coming down to seize them, a step which his followers are believed frequently to urge on him. The custody of these boys has given a deal of trouble to the Government, but on each occasion the Secretary for Native Affairs has endeavoured to show Ketchwayo the fruitlessness of any step having for its end a forcible recovery of his brothers. When in 1861 through friendly chiefs it came to the knowledge of the Natal government that a large so called hunting party was being concentrated on the banks of the Tugela, the Governor lost no time in applying to Sir George Grey at the Cape for further Military assistance, the demand was met with a promptitude such as has always been shown by that able Governor. Sir George's experience in the Cape and New Zealand wars has taught him the value of quickly concerted and summary measures when dealing with barbarian enemies. In this instance the speedy possession of an additional six hundred Queen's troops enabled the authorities to remove the regiment located in Natal further towards the frontiers, a

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* Mr. Fynn who dwelt amongst them for more than thirty years, during which fourteen were spent as a British Magistrate, says that at least 7000 perished in the general massacre ordered to mark the death of Choka's mother.

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step which we have a right to believe had its effect, as before long the wily chief was fertile in explanations as to the hunting party on the British frontier. It is sincerely to be hoped these younger sons of Panda will be long ere they cross the Zulu border, as their existence is openly spoken of as the present king's only danger. Panda abdicated out of fear of Ketchwayo, and now being very old and entirely bereft of all state, the Zulus have lost both fear and interest in the man whose friendly disposition towards Europeans has enabled us to know much of these extraordinary people which we could never have learnt from the refugees.

Mr. Baldwin alludes to the fearful sacrifice of life in this war, and we select one or two passages on the subject. Thus he writes:—

'The Kaffirs who were on the victorious side told me that the 'Tugela was red with blood and that the Inyoni, another river 'about eight miles nearer was so fœtid with the number of dead 'bodies that no man could drink the water, and that I should 'walk over dead bodies all the way between the Matakoola 'and the Tugela a distance of fifteen long miles. I found 'from Mr. Aftebro that the country was nearly depopulated, 'thousands and thousands of men, women and children being 'stabbed or drowned in attempting to cross the Tugela. He 'calculated that fully one fourth of the whole Zulu nation must 'have been destroyed, and told me that 8,000 head of cattle had 'passed his station alone. The victors lost a great number of 'people also. It is most extraordinary to hear them talk about 'the fight; they appear to think no more of taking human life 'than an Englishman would of killing a rabbit. One man said 'he had killed six, another nine, five or three; and one great 'warrior had killed twenty, and then he would count on his 'fingers, so many young men, so many wives, and so many un-'married girls, Zintombis, and laugh and chuckle over it im-'mensely. Panda who was alive and well, while his two sons 'were fighting which should succeed him had himself killed 'seven of his brothers'. * * *

'The whole country was entirely depopulated, and the air 'tainted with dead bodies for the last twelve miles, they were 'lying in every possible attitude along the road, men, women and 'children of all possible sizes and ages; the warriors untouched with 'their war-dresses on; but all in a state of dreadful decomposi-'tion. For a long time the Kaffirs endeavoured to avoid tread-'ing on or coming very near the dead being very superstitious; 'but as we neared the Tugela the bodies lay so thick in the 'road and on each side that it was impossible to avoid them any 'longer. The Kaffirs walked very quickly and never answered 'once any remark I made appearing frightened as well as

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'intensely disgusted, and no bribe that could be offered would 'induce a Kaffir to touch one. I saw many instances of mothers 'with babies on their backs with assegais through both, and chil- 'dren of all ages assegaied between the shoulder blades.' A very large number of the young and middle aged now in Natal bear the marks left by wounds received at the fight of the Tugela. They are very proud if an European notices these, and it only requires an allusion or question regarding how they were obtained to set them off on a full and graphic description of that day. A Kaffir, who will admit he belonged to the defeated army, will enter with the greatest gusto into a narration of what he saw and did. But enough of a horrible story. Mr. Baldwin says he shortly afterwards came up with the victors teaching Ketchwayo as they said to be king. After such an acquaintance with Kaffir life it is strange to find Mr. Baldwin saying—

'They say perfect happiness does not exist in this world, but 'I should say a Kaffir Chief comes nearer to it than any other 'mortal; his slightest wish is law, he knows no contradiction, 'has the power of life and death in his hands at any moment, 'can take any quantity of wives and put them away at any 'moment, he is waited upon like an infant, and every wish, 'whim and caprice is indulged to the fullest extent.'

But contradictions abound wherever Kaffir character is touched upon in these travels, it may be owing to the variety of tribes our author has had to do with. We cannot wind up our remarks alluding to Kaffirs and Mr. Baldwin's opinion of them better than by quoting a paragraph as a context to many to be found in his book. In the one below he does only justice to a people possessing many admirable qualities, foremost amongst which are honesty, truth and patience, against these must be set ingratitude and laziness—of the latter many are already comparatively cured, but the former bad quality they will never lose; they do not understand the meaning of gratitude, but they may be taught to understand the value of industry. Many persons deny their honesty, such a denial is a libel on the nation; a few years real experience enables any man to cite dozens of cases of the most interesting character to prove its extraordinary prevalence, although we agree with Mr. Baldwin it has been implanted through fear, for by their law theft is punished by death. Some mistakes have arisen with casual visitors through a want of discrimination. Unfortunately too many cases of petty larceny have occurred amongst the youths from the Missionary schools, and the writer is convinced it arises from impressing upon the native children the necessity for doing as Europeans do regarding dress, &c. without sufficiently inculcating that nakedness is less

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discreditable than wearing clothes obtained by theft. The testimony we refer to is as follows, and if 'money' be inserted for 'bullets' it will be equally correct:—

'I got a note from John some nine days ago, saying he had lost 'all his bullets on the path, and wishing me to send him more. 'This morning the bullets were brought here by a Kaffir who 'had picked them up two days from here. Their high sense of 'honesty is wonderful; for there is nothing, perhaps, that 'they more desire than powder and lead, and this find was a 'godsend; yet the Kaffir brought them back. There are some 'excellent traits in their character; but, as they are perfect 'heathens, it is as much through fear as any better feeling.'

The best proof, if proof be needed, of the Kaffir's honesty, is to be found in the fact the oldest Colonists employ them on errands of trust. The Kaffir servant as fully understands the value of money as his master does, yet the master employs him every day to carry money long distances and through localities in which if he were missing, it would be impossible to trace his whereabouts. Strangers accustomed to that caution which a residence in most countries renders necessary, never fail to express surprise at the trust reposed in the Natal Kaffirs. Often have we known Pieter Maritzburg Merchants and even the Banks send to D'Urban by servants hundreds of pounds counted out in their presence, to satisfy them as to the exact number of "*shumi*" (tens) they had to deliver to the D'Urban "*Molonghi*" (white man). And although the payment for this work will be but some 12s or 14s between the two (for they prefer to travel in company), we never yet heard of a breach of the trust reposed in them.

Attached to the volume is a small map of South Africa, upon which are traced the various routes adopted in each of Mr. Baldwin's trips, adding materially to an easy comprehension of the extent and variety of the country comprised in his journeyings. It is only when we thus see them clearly described, that we recognise how greatly enchanced must be the difficulties the traveller has to contend against, when treking in Bechuana land or the Mosilikatse country as compared with Natal and the Zulu country, to say nothing of the Transvaal and the Free State. These latter parts of South Africa are blessed beyond all comparison with any other districts by that inestimable prize an ample supply of irrigation, its high lands and mountain ranges send forth their rivulets in all directions towards the Eastern coast, but seem to cherish a conservative dread of supplying any land South of Natal or North of Delagoa Bay. In Natal one never thinks of enquiring as to the certainty of finding water, whereas to a traveller visiting some

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of the districts alluded to by Mr. Baldwin it is the first consideration. More misery has been engendered by rashly undertaken trips into arid lands than by all other causes put together, and it is only the practised traveller who thoroughly understands the necessity of gaining sound information on the subject ere he ventures where there is danger of a scarcity of water. In Natal every few miles the traveller meets with a river large or small; his chief difficulty resting in detention from this cause in the rainy season, owing to the absence of bridge accommodation, but generally speaking, during three fourths of the year, no rivers are too deep to be safely crossed by the ordinary South African waggon. With this countless variety of streams, which flow through the Zulu country as well as Natal, it is a lamentable fact, but so it is, not one is navigable for commerce, and even if the beds of the most favorable could be kept clear, there still exists one great hindrance. As they all flow towards the Mozambique Channel, all are blocked at the mouth except at certain tides; the same drawback exists in the shape of a bar at the mouth of the bay of Natal. No anchorage could be safer, and none presents greater conveniences naturally, while few could show half the beauty presented to the eye when once inside the bar. With all these advantages it has one of the most serious drawbacks which any port can be subjected to,—the depth of water so suddenly fluctuates, in accordance with the prevalence of certain winds, that we have known vessels drawing eleven or twelve feet only detained outside six and seven weeks at a time. To overcome this difficulty, very extensive harbour works have lately been commenced at Port Natal, it being believed that the colony will eventually be benefitted by the removal of the bar, to an extent which justifies the present vast outlay. The bar that silts up the mouths of all the Natal rivers frequently becomes of such a height as when aided by the dry sands, driven by the easterly winds, to form a ridge of land making the river near its mouth into a lagoon for a time, and it is in these lagoon that the sea-cow delights to revel. But this silting up greatly depends on the nature of the season and especially on the prevalence of certain winds which at all times blow more or less strongly on the East coast of Africa during the summer season.

Turning over the pages of this book, we are reminded by frequent reference to the weather that some allusion to the climate should be made, as being one of the chief advantages of which Natal can boast. The climate is superb;—we have never yet heard its beauty called in question. Visitors, contented or discontented, will admit that the splendid climate with which Natal is blessed goes far to make up for its

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many shortcomings. The Colony may challenge the world to show one superior, we might almost say equal to hers, possessing the highest qualities of the temperate and torrid zones admirably blended. On the coast, and for some fifteen or twenty miles inland, an almost tropical heat prevails during the whole summer, but rendered healthful and agreeable by the prevalence of strong sea breezes which blow almost without intermission during the season from North East or South East; while the higher lands of the interior possess an European climate aided by a strongly rarified air; indeed the clearness of the atmosphere in all parts of Natal is remarkable, and Mr. Baldwin points it out as being the great cause of sportsmen from other parts so continually misjudging distances when taking aim. The summer season in all parts of the upper districts resembles that of the most favored parts of Europe, while the winters are less severe than in the northern hemisphere. It is on this account that Natal is now being strongly recommended as a favorable spot to which to transfer a patient suffering from any description of pulmonic complaint. When the Colony is so selected, we suspect the invalid should take up his residence between Pieter Maritzburg and the Drakensburg, as we can hardly believe that the coast lands with their tropical bush can prove otherwise than injurious to the sufferer.

The wide difference between the climate on the coast and that inland is shown by the character of the Natal products embracing, as we have said, almost every known plant; those of the tropics are rendered especially fine owing to the hot season being the time of year when the heavy rains descend, coming in the form of thunder storms of two or three hours duration nearly every afternoon. The increased altitude of land towards the interior is most strongly marked on the coast, but in four distinct steps the height of the Drakensberg mountain range is attained. Pine Town hill some ten or eleven miles from the port, and on the road to Pieter Maritzburg forty miles away, is in elevation but little inferior to that city. In the neighbourhood of this city, the capital and seat of government, all European fruits, flowers and vegetables grow in perfection, while twenty miles towards the Drakensberg wheat forms the only exception to a satisfactory production of the cereals of the world, and many colonists are still sanguine that a wheat crop will yet be added to the number, but from the attempts already made by practical men we fear further experiments will prove equally disappointing. The neighbourhood of the Drakensberg is healthy and beautiful, forming the sanatarium for invalids injured by other climates, or by the reckless colonial living which

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is the bane of the Natal of even the present day, proving it no exception to the majority of young colonies.

It may seem strange to the casual reader if we express the opinion that despite its splendid climate, and though blessed as we admit it to be with a most fertile soil, we can see no chance of Natal ever becoming a thriving colony. We have before stated that the colony will produce almost every thing belonging to the vegetable kingdom, but to each one of those products which can ever enrich a people, some serious and, we fear, fatal impediment exists against a favourable competition being maintained by Natal in the markets of the world. So long as the colony has to depend on imported labor it will stand at a disadvantage in a comparison with many parts of the globe. Let us take, for instance, the article of sugar, the only exportable article produced in a quantity worthy of notice,—the little wool exported being the produce of the Free State though shipped from D'Urban. This article dates from about 1855 or 1856, and was looked upon as the crop which was to do what cotton failed to do in making the fortunes of the colonists. It is proved that sugar can only be grown in Natal by imported labor, in which case it has to compete with Brazil and Cuba (slave countries) and our own West India Islands, to say nothing of Mauritius and Reunion; and as though this competition was not sufficient to deter capitalists from investing their money, experience has shown that during some winters the frost is too severe for the cane even on the rising ground; in the valleys it has proved a total failure.

Take again coffee. Some beautiful specimens have been produced. There are now several estates in the neighbourhood of D'Urban, but unfortunately the berry does not ripen simultaneously, on the same tree will be found the green berry, the advanced and the ripe, thus requiring the gathering to continue all the year round entailing vast labor where labor is very dear, and very dear because no legislation has yet been permitted, having for its object the making the refugee Kaffir an useful member of society. Without some great advantage to compensate for the difficulties which must always present themselves in growing tropical produce in a semi-tropical country, any such enterprise must eventually fail. But to the sportsman or the man travelling for pleasure Natal has ample attractions. The novelty of a rough South African Colonial life will have its charms for both, while the former will probably be as well satisfied with the opportunities of distinguishing himself as the latter with the varied amusement and information derivable from a visit to a beautiful country inhabited by such

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an extraordinary people as the Kaffirs. Probably there is no country in the world that contains at once such a variety of nature, animal or vegetable as South Africa. Every tree, shrub, plant, fruit or flower is to be found there, while the animal world has been more than abundant in its grants to the eastern portion of the continent. The buck, for which the country has gained so celebrated a name with all hunters, is equally prolific in the Free State as in Namaqualand. When the dry season drives the herds to the lower districts for pasturage you will see Gordon Cumming's statements fully verified—one looks out and the first sight astonishes, but a continuation of the same moving mass leaves one uncertain as to the correctness of the visual organs, it seems incredible that the flock the sportsman saw galloping along at sunrise this morning can be connected with that at which he takes aim this afternoon, but so it is, and after a while he loses any thought of the credible or the incredible, and believes any thing the native tells him, whether likely or unlikely, whether it refers to the gorilla or the unicorn. The difficulty is when to doubt, and doing so sometimes proves one absurdly incredulous, but there still remains the danger of an exhibition of credulity which the Kaffir will turn to advantage, and where to draw the line will always be the difficulty of the Natal traveller. His credulity may prove tolerable, but the Kaffir has little respect for the over suspicious European.

In the present instance, the list of the game *bagged* is so enormous that we should be inclined to call in question our author's veracity, did we not know Mr. Baldwin. His statement only affords to us another proof—if such were wanting—of his quality as an unerring marksman and is to us as satisfactory as the production of the skins of the animals reported to have fallen to his rifle. In one expedition alone, that to the Zambesi he bagged many individuals of the following list of animals, elephant, hippopotami, rhinoceroses, white, black, blue, and two horned; giraffes, elands, buffaloes, hartebeests, wildebeests, of all sorts and colors; quaggas and some thirty different species of buck, to say nothing of lions, leopards, panthers, hyenas, wolves, dogs, cats, anteaters, boars, crocodiles, armadillos and a thousand other animals, while the birds comprise every winged thing from the ostrich to the sacred Ibis, or the large crested bustard to the common snipe.

Remembering to have met Mr. Baldwin on his last return journey reminds us that few of our Indian readers are likely to be able to form any correct idea of a traveller's waggon life in the parts Mr. Baldwin selected for his hunting field.

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Few lives are more extraordinary than the waggoner's, whether he follows the treck for pleasure or for profit. We see now and then the gun had to be dropped by our author in favor of the whip, and we are not surprised to see he complains of the hard work entailed by the perpetual use of that sixteen feet bamboo handle with twelve feet of hide attached. Many a larger and stronger man than Mr. Baldwin has found waggon driving no easy occupation, but he in common with others admits its charms.

The reader is much mistaken if he supposes that a twelve months trek in a South African waggon is monotonous—to say nothing of sundry breaks dowr., or now and then some necessary repairs to be effected, there is the continual attention to one's oxen, the outspan every three hours with the simultaneous temporary encampment, and the wood fire to boil the coffee, almost the universal drink when treking in South Africa, then there is the perpetual unpacking and repacking the watching the span while grazing, as oxen accustomed to roam over such distances as Zulu cattle are will, if allowed, wander a long way in search of grass should they find that in the neighbourhood of the outspan distasteful, and this often has to be selected from its proximity to water.

Then there is the change of time for treking, and the suspension of it when wet weather sets in, owing to its proving very injurious, while it is cruel to trek in rain since the yoke when wet galls the necks of the oxen most unmercifully. Of course the most pleasant time is when the moon allows one to trek by night, and both men and beasts are thankful for those parts of the month. The turn out of a waggon is one of the most remarkable exhibitions in the world, it is unique, and while not likely to have a charm for Lord Dundreary, whom it would sorely puzzle to discover the uses to which some articles are put, it does its share in adding to the novelty and pleasure of South African veldt life. The waggon has to serve the traveller's every purpose—it is as much his hotel as his storehouse, and a pretty medley of both it generally is. Mr. Baldwin describes himself as surrounded by a chaos composed of 'heads and horns 'of all descriptions, lion's and wolf's skulls, ostrich eggs, jackal 'and wild cat skins, koodoo, tressebe, wildebeeste, springbock, 'rhinoceros horns and ears, great lumps of salt, dry flesh hang-'ing up, neck straps and yoke keys; guinea fowls, ducks 'and geese, pheasant and partridge feathers in all direc-'tions, rabbit skins without number, pots, pans, ostrich 'feathers, buffalo and eland hide.' We do not mean to say every waggon will show so great a variety, but there may

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always be found an incongruous mixture of articles of trade, food, wearing apparel, waggon necessaries, tools and curiosities. Some idea of an African hunter's life may be gathered from a few casual remarks which are found here and there in the book before us. 'It is miserable enough at times, 'but altogether it is a roving, careless, wandering life that has 'charms for me. We do just as we like and wear what is most 'convenient. When on foot a blue and white shirt and a stout 'pair of gaiters, with the addition of a cap and shoes, are all that 'I burden my body with'. * * * 'Missing my way I was obliged 'to sleep in a Kaffir kraal.' Any person possessed with olfactory nerves at all sensitive will pity him. 'I slept out that night 'after a heavy feed on the eland, (just shot) of which the Kaffirs 'reserved for my special benefit the tongue and a marrow-bone.' As a contrast we read 'on our return we found Proudfoot and 'Maxwell arrived. We had a jolly afternoon with a little target 'practice and athletic feats and finished up the evening with 'singing'. At a meeting such as this even European politics are discussed, we find. Of course all local information is sought with avidity. It serves another purpose in the form of providing a circulating library, by which the book read half a dozen times in one waggon takes it place to do duty in exchange for one equally well digested in another. Objections on the ground of its promoting a desultory style of reading may be raised, but only let the objector be in a like state of destitution, and he will learn to value anything in the shape of a book. It is true this kind of library may not be quite as perfect as Mr. Mudie's, from whence we are told books are supplied to every part of the world, but perhaps even that enterprising purveyor of literature might experience some difficulties in keeping up a regular supply of new books to a subscriber of the roaming character of those who belong to the Baldwin school. In another place we read of a vegetable diet as novel in its way as elephant heart. 'I breakfasted yesterday about 2 P. M on a raw talo, a 'root somewhat resembling a huge potatoe, but soft, sweet and 'moist;' and amongst other horrors of the desert he describes a drinking vessel out of which he says he had a most refreshing drink, it being the paunch of a Quagga, 'the very best thing one can carry 'water in, as evaporation takes place; and though the sun is 'burning hot the water is remarkably cool and good.' While extracting these items from various parts of the book referring to Veldt, bush or desert life, we must not omit to afford our readers an insight into the views upon European waste which our author and Kaffirs equally protest against by their daily life. When speaking of a dinner of roasted giraffe, we are told

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the daintiest part is the intestines, and we are assured that if we will only consent to drop our prejudices, we English shall find we systematically neglect the best parts of all the animals of which we partake. Every man is of course at liberty to follow his taste, but we are not yet prepared to take as a fair specimen of an epicure, a hungry hunter or to pin our faith on an authority evidently so far from that of a fastidious gourmand as we believe Mr. Baldwin to be. We know he is right in saying that 'the 'Kaffirs know well the best parts of every animal and laugh at 'our throwing them away'; but tastes differ, and the Kaffir when he can get animal food selects the parts that possess the strongest flavor irrespective of delicacy—besides which, their digestion is generally of an almost perfect kind—while the manner in which they dispose of lung-sick cattle renders it certain they are blessed with stomachs very different from those usually given to Europeans.

Perhaps it was the society in which some of his meals were taken that rendered our sportsman disposed to look with a favorable eye upon Kaffir cooking.

'We dined in the open air, and were attended by the prettiest 'girls in the kraal who knelt before us and held the dishes from 'which we ate. They wear no clothing but a skin round their 'loins; their legs, arms, necks and waists are ornamented with 'beads of every variety, and ivory, brass and copper bracelets. 'Finer made girls than some of the well fed Kaffirs I suppose 'are not to be found. They have small hands and feet, beauti-'fully-rounded arms, delicate wrists and ankles; their eyes and 'teeth are unsurpassable, and they are lithe and supple as a 'willow wand.' Here is another episode in waggon life which, if usual, would we suspect cause most of our Indian hunters to lose a taste for sport were they compelled to imitate it. 'I have made 'pair of shoes, mended others and done my best to kill time and 'have received four books in exchange for mine, but am very 'chary of them reading only a little at a time, to spin them out 'to the uttermost.'

Mr. Baldwin in various places gives good, useful practical hints, and as Natal hunting is widely different, owing to the kind of game, to sport in many countries, an intending visitor will do well to read the volume. To the numerous sportsmen in India, to whom a change to the beautiful colony of Natal might prove agreeable, we unhesitatingly recommend this book. Of course many of the jottings down in its pages will seem commonplace observations to the experienced hunter of large game any where, but upon the tyro they will not be wasted but may prove serviceable in his early essays. He writes: 'the bagging of

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'large shy game on foot is a complete science and requires 'no small skill. You must take your bearings, study the wind 'to a point, and if seen by the animals, go in an exactly opposite 'direction, marking well the place, and gradually work round 'never stopping to look dead at them unless well concealed. It 'is impossible to use too much caution. I have heard an old 'hunter say that if he got one good chance in a day he was 'perfectly satisfied. The first dawn of day is the best time 'to commence, and a good telescope an immense assistance.'

When Mr. Baldwin thus instructs others he must not be [illegible] for a boastful instructor. We cannot do better than quote an incident which goes far to prove that he is by no means a sportsman of the braggadocio class—he misses and he blunders, and with his usual truthfulness is not ashamed to let us know he does so. Thus we read—'Reached 'the St. Lucy, across a hilly, rough, stony, broken country. After 'being roasted in the sun till I thought I must have had brain-'fever waiting for a cow koodoo (the sentinel of the troop) to 'disappear over the ridge, I came so suddenly at last upon the 'troop that though usually most shy, wary, and difficult of 'approach, they seemed now quite stupified, and I got right and 'left at two magnificent old bulls, hearing the bullets tell loudly 'like the drawing of corks both within twenty-five yards; 'but being too anxious to get both, I got neither. It was 'very mortifying, and I felt very small in my own eyes. I 'had left my hat far back and suffered terribly in consequence. 'To crown all, I lost the finest horned rhinoceros I ever beheld. 'I found him, while endeavouring to trace the blood-spoor of 'one of the wounded koodoos, standing half up to his middle in 'a mud-hole with his tail towards me. I endeavoured to di-'rect his attention to me in various ways. I was within fifteen 'yards and had been for many minutes and could have picked 'my place to fire twenty times, but after the last discomfiture 'I thought I would make dead sure, when without warning of 'any kind he suddenly made right off, and I had only a stern 'shot left me which was of no manner of use.'

After all the sport we arrive at that portion of Mr. Baldwin's narrative which affords some interesting information regarding the realisation of his hopes and endeavours through the last trip he undertook. He reaches the Zambesi overland. For some time past we have seen him giving way to despair, so much so that we have been almost fearful he would abandon his intention; the difficulties were so great and apparently insurmountable that most men would have turned back long before deterred by uch hindrances as want of guides, want of water, indisposition

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of the attendants to go on, unfriendliness and ignorance of the natives, duplicity of the chiefs, loss of oxen, all thus conspiring to form sufficient reasons for abandoning the daring enterprise. After some days spent in trying to get help from the Batokas by bribery and all other possible modes, he says: 'I can get no 'intelligence at all from the natives as to the when and where 'I am likely to reach the great falls of the Zambesi, and I now 'believe firmly that none of them know themselves anything 'about it.' In another place he says—'My hopes of reaching the 'Zambesi even on foot are fled. I am all alone and will chance 'a pair of horses through the fly in the night.' It may be unnecessary, but we may remark that Mr. Baldwin alludes to the tsetse fly—one of the greatest of all the troubles and dangers the African traveller has to contend against. This fly somewhat larger than the common house-fly abounds in some districts of South Africa, and fortunate indeed is that traveller who can get through with the loss of only one or two of his span of oxen,—for the bite of this insect (and it attacks horses as well as oxen) is generally fatal. The work of destruction by the tsetse fly is frightfully sudden. Sometimes carrying off the whole of a waggoner's span in twenty-four hours, and leaving him destitute of all means of communication but by his own feet. Too great care cannot be taken as to the whereabouts of these districts, for the inexperienced traveller will not discover the existence of this plague until his oxen are dying around him apparently without reason.

Not many days after reading the expressions of despair, we find his hopes are realised. On the 4th August he finds the Zambesi Falls, for four days he walked day and night until his ears were greeted with their roar; although rather long for extract, his description of the Falls will not, we are sure, be uninteresting, and therefore we transfer it to our pages.

'I struck the river first about two miles above the Falls and 'there it is not less than two miles wide, covered with islands 'of all sizes, one at least ten or twelve miles round wooded to 'the water's edge—mowana trees, palmyra, and palms and plenty 'of wild dates, some of the former measuring twenty yards 'round the bole. The river is the finest and most beautiful I 'ever saw. It is rocky and rather shallow and just above the 'Falls about one mile wide. And now for the Falls. I heard the 'roar full ten miles off, and you can see the immense volumes 'of spray, ascending like a great white cloud, over which shines 'an eternal rainbow. The whole volume of water pours over 'a huge rock into an enormous chasm below, of immense 'depth.'

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'I counted from sixteen to eighteen, while a heavy stone of 'about twenty pounds weight was falling. I could not see it to 'the bottom, but only saw the splash in the water. I stood 'opposite to the falls at nearly the same elevation, and could 'almost throw a stone across. The gorge cannot be more than a 'hundred yards wide and at the bottom, the river rolls turbulently 'boiling. You cannot see the largest falls for more than a few 'yards down, on account of the spray, and you are drenched 'with rain for a hundred yards round from the falling mist. 'It is one perpendicular fall of many hundred feet; and 'I should think these were no less than 2,000 yards long, 'and the outlet is not certainly more than forty yards 'wide.'

'This outlet is not at the end of the gorge, though how far 'off I cannot say; the streams meet, form a wild mad whirlpool 'and then rush helter skelter through the pass. Looking up 'the gorge from that point is the most magnificent sight I ever 'beheld. It is as if streams of brimstone fires were ascending 'high into the clouds. There was a never ceasing rain for fifty, 'and in some places a hundred yards on the high land opposite, 'and the rocks are very slippery, and the ground where there are 'no rocks is a regular swamp, where the hippopotamus, buffalo 'and elephant come to graze on the green grass. There is one 'grand fall at the head of the gorge which you can see to the 'bottom about eighty yards wide, but not so deep, as the river 'forms a rapid, before it shoots perpendicularly over the rock. 'Below the Falls the river winds about in a deep, narrow in-'accessible gorge—a strong swift rocky stream. I followed 'its windings for some distance, and after all was not more 'than two miles as the crow flies from the Falls. It is one suc-'cession of kloofs, valleys, mountains, and the worst walking I ever 'encountered. The river through this fearful gorge seems not 'wider than a swollen Highland torrent. The greatest drawback 'to the otherwise magnificent scene is that the dense clouds rising 'from below render the main Falls invisible, and it is only the 'smaller cascades you can see to the bottom. There are some 'thirty or forty of these, spreading over a space of at least 1500 'yards. The Makalolo are very jealous and very much alarmed at 'my having found my way hither, and cannot account for it. I 'show them the compass and say that it is my guide and they 'are sorely perplexed. * * I saw the Falls from the opposite side 'yesterday and also from above. No words can express their 'grandeur. The view from above is to my mind the most mag-'nificent; the water looks like a shower of crystal, and it is one 'perpendicular fall of immense height. There is only one outlet,

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'and it is marvellous how such an immense body of water 'squeezes itself through so small an opening.'

In this neighbourhood Mr. Baldwin of course came across Sekeletu, the man who is now giving the Zambesi Missionaries so much trouble, indeed such a complete antagonism has lately been manifested towards the Europeans there that the wisdom of withdrawing the Oxford and Cambridge Mission sent out the year before last has been seriously discussed at home. So far as we have heard from those who have had to do with Sekeletu, we are disposed to believe he will never forgive the British, and if we are to carry on Missionary labours in his country, it must be at the point of the sword. After his reception of Mr. and Mrs. Price, upon whom he revenged himself for what he considers a breach of faith on Dr. Livingstone's part in some transactions in ivory, for some time at any rate our people should keep clear of this determined and powerful savage. In that case he believed, or pretended to believe, that Mr. Price's Missionary party had come to get more of his ivory, and therefore under a semblance of hospitality he poisoned the whole. Mr. Price fortunately recovered owing to the weakness of his stomach consequent upon a long illness; this caused it to refuse to retain the poison; but Mrs. Price and a gentleman whose name we forget died almost immediately. These wretches, in addition robbing Mr. Price of every part of his three years' equipment. To a barbarous people irritated as Sekeletu's is, we have no business to send our Missionaries, it is inviting bloodshed, and this must continue so long as we persist in thrusting ourselves on them.* They consider us interlopers and treat us as such. We see by the English papers that a bishop has gone out to fill the vacancy caused by Bishop Mackenzie's death, and we hope he will on arriving in South Africa see the necessity of choosing some other neighbourhood than the one selected at first, entailing as it has a long series of calamities and misfortunes. Mr. Price is not now, we believe, amongst them, unfortunately for him he knows them only too well. We have heard him relate how after the interment of those of the party who died from the effects of the poisoned beer, he saw a few days afterwards one of the chiefs

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* Entertaining these views, we are glad to see that the British Government has just determined on the abandonment of the Livingstone Enterprise—although the recal of the members is based upon the expensive character of the expedition and not upon the recent disturbances. Any way we are glad to read that an end will now be put to the danger attending a handful of Europeans, and presume the promoters and supporters of the O. and C. Mission will consider the withdrawal of Livingstone's party as a further ground for deciding upon a transfer of the Missionary laborers to one of those districts in South Africa where the chiefs are friendly to European subjects.

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with a necklace made of a European's teeth, and which the savage boasted were Mrs. Price's—only too correctly as all the bodies were found to have been dug up and mutilated. If such a man as Mr. Price known and respected by many of the Kaffir tribes, and therefore understanding how to treat the barbarian inhabitants of Africa meets with such a reception as this, the position of a Missionary party avowedly come to settle in the neighbourhood must be hazardous in the extreme. Mr. Baldwin is no mean judge, having had considerable experience with chiefs of the Mosilikatse class he found the less he had to do with Sekeletu's people the better. They are thorough followers of their chief. Thus we read: 'Massipootana, one of Sekeletu's captains, was 'exceedingly savage I had seen the falls without any assistance 'from him or his people, and sent several messengers to say that 'I must pay him handsomely. On the third day I went to see 'him and made him a small present, but he was quite on the 'high horse and said, that now I had come across he would take 'care that I did not go back again; I must stay there till I 'had paid him for the water I drank and washed in; the wood 'that I burned, the grass that my horses ate, and it was a great 'offence that I had taken a plunge into the river on coming 'out of one of his punts; if I had been drowned or devoured 'by a crocodile or sea-cow Sekeletu would have blamed him, 'and had I lost my footing and fallen down the Falls, my 'nation would have said that the Makololos had killed me.'

That the Makololos are at present very angry with Dr. Livingstone and the Missionaries they take good care to show on every possible occasion; they never were known as a friendly tribe, but it has been only of late that the directly hostile feeling towards the English has been plainly manifested. Baldwin explains it thus and says he gained the information from his own interpreter. When speaking of his disappointment in finding that the Makololos would not trade any tusks with him he says—'the 'captain is exceedingly annoyed at a number of his men sent 'by his father to Dr. Livingstone remaining behind, and he 'blames the doctor, who he says ought to have made them come 'back, and he is vexed also at the non-arrival of of the cannon 'and horses which the doctor was to have brought him.' We do not doubt but this is another grievance, for we have always understood that the treatment Mr. Price received was ostensibly as an example of what Sekeletus people would do with any who again took away ivory under promises of sending back presents in return. Too great care cannot be taken in promises made with the natives of South Africa they are very mindful of theirs, and expect others to be the same; if they are once defrauded,

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even unintentionally, the most friendly people will become your enemies. Mr. Baldwin mentions the treatment he received from Sechele, one of the most friendly chiefs we have in Africa, and one that pretends to be half a Christian.

Mr. Baldwin writes—'I found Sechele as I expected at the 'Bamangroats State, and instead of receiving thanks from him 'for the safe convoy of his daughter, he merely pointed to her 'and said that is my child whom an Englishman your country-'man has thrown away. I thought the English were my friends; 'but now I see they are just the same as the Boers and wish 'to make me dead; and as they have treated me so I will treat 'them. He told me that I must pay his man whom I had 'engaged for two heifers, I must give him two bags of powder 'and two bars of lead, and do it at once as he was going to 'inspan and trek to his state. I did so and then he ordered 'his people to drive my horse Fleuer to his horses, and he should 'take him also, and let me see the way the Bechuanans acted when 'they were wronged. I could do nothing but submit which I did 'with a very bad grace. My driver and his driver told me that 'the moment that Sechele was gone the Mangwatos would unload 'my waggon and take everything as I had gone through 'Machin's country without first asking his leave, and they 'begged me to inspan and go with Sechele.'

In reading these accounts of his rambles in South Africa, we have seen Mr. Baldwin as the traveller, the sportsman, and we may say the diplomatist, in all three characters remaining perfectly unfettered and able to follow his own '*trek*' in the path which offered him the greatest temptations. In all these he has proved himself no common traveller. The skill he has exhibited during his trips, extending over an eight years residence in South Africa, is only equalled by the exhibition of his indomitable pluck and never ceasing energy; indefatigable to the last degree he must have been, or we could not now chronicle his three different wanderings in the Zulu country; his journey into the Merico country; his visit to Lake Ngami or his sojourn amongst the Maccalacas, to say nothing of his troubles and dangers when he went amongst the latter as well as the Makololos. That he has come safely out from among these various tribes we heartily congratulate him, and only regret that it is not within the limits of an article such as this to find room for the various sporting adventures which Mr. Baldwin so ably relates. We open the book and every page conveys some adventure more daring or more dangerous than the one we last read of. It will prove to those who read it a lively as well as entertaining book, equally enjoyable

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as a fund of amusement or as work of instruction, we invite the reader to a book which we should spoil if we abridged, but from which we have already made more than a liberal selection, but in defence we must plead a temptation such as seldom falls to our lot.

We take leave of our interesting author and daring sportsman with the quotation of one more example of his prowess, and one that he has himself selected for especial notice as his last great feat. If he has by this time rejoined his old friends in Natal, we know that with gun in hand he will be certain further to distinguish himself, and we trust that health and opportunity will enable him to give the world in an equally entertaining and instructive narrative the results of his second series of wanderings in the Colony he so thoroughly loves, and where he is so universally respected and such a great favourite. The adventure with the Lion we give in his own words.

'The masaras followed his spoor about a couple of miles, when 'he broke cover. I did not see him at first but gave chase in the 'direction in which the masaras pointed, saw him and followed 'for about 1,000 yards as he had a long start, when he stood in a 'nasty thorn thicket. I dismounted at about sixty or seventy 'yards and shot at him; I could only see his outline and that 'very indistinctly, and he dropt so instantaneously, that I 'thought I had shot him dead. I remounted and reloaded and 'took a short circle and stood up in my stirrups to catch a sight 'of him. His eyes glared so savagely and he lay crouched in 'so natural a position with his ears alone erect, the points black 'as night, that I saw in a moment I had missed him; I was 'then about eighty yards from him and was weighing the 'chances of getting a shot at him from behind an immense ant-'heap about fifteen yards nearer. I had just put the horse in 'motion with that intention, when on he came with a tremen-'dous roar, and Ferns whipped round like a top and away at full 'speed. My horse is a fast one, and has run down the gemsbok, 'one of the fleetest antelopes, but the way the lion ran him in 'was terrific. In an instant I was in my best pace leaning for-'ward, rowels deep into my horse's flanks looking back over my 'left shoulder over a hard flat excellent galloping ground. On 'came the lion two strides to my one, I never saw anything like 'it, and never want to do so again; to turn in the saddle and 'shoot darted across my mind when he was within three strides 'of me, but on second thoughts I gave a violent jerk, on the near 'rein and a savage dip at the same time with the off heel armed 'with a desperate rowel just in the nick of time as the old mana-'kin bounded by me grazing my right shoulder with his and

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'all but unhorsing me, but I managed to right myself by cling-
'ing to the near stirrup leather. He immediately slackened his
'speed, as soon as I could pull up, which was not all at once as
'Ferns had his mettle up, I jumped off and made a very pretty
'and praiseworthy shot considering the fierce ordeal I had just
'passed (though I say it who ought not) breaking his hind leg
'at 150 yards off just at the edge of the thicket. Fearful of
'losing him as the masaras were still flying for bare life over
'the felt with their shields over their heads, and I knew nothing
'would prevail on them to take his spoor again, I was in the
'saddle and chasing him like mad in an instant. His broken
'leg gave me great confidence though he went hard on three legs;
'I jumped off forty yards behind him and gave him the second
'barrel, a good shot just above the root of the tail breaking his
'spine, when he lay under a bush roaring furiously and I gave
'him two in the chest before he cried "enough."'

Fate has again shown her caprice. The Nimrod that with iron frame bids defiance to fever after fever in South Africa, runs risks and braves dangers such as do not ordinarily fall to the lot of man, rides after the hounds in Leicestershire and meets with a serious accident, but we trust ere this the results of the injury received on that occasion may have proved of a less formidable character than was at first feared, and that it may be our pleasure to have again to welcome in the Veldt the William Charles Baldwin we had the pleasure of meeting in the beautiful colony of Natal.

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ART. II—1. *A Circular* of the Chief Commissioner of Nagpore, dated 4th July 1862.

2. *Dry Leaves from Central India.* MR. G. CLINE Vol. 1st. Engineer's Journal 1858:

3. *Friend of India*, 1861-62.

4. *Times of India*, 1861-62.

5. *Report on the Administration of the Central Provinces up to August*, 1862. by R. TEMPLE ESQ. B. C. S., Printed at the Chief Commissioner's Office Press, Nagpore.

WHEN a few years ago attention was called, by Captain Bell to the Nagpore Provinces, very few people in England, or even in India, cared to read his published letters. There were few who took the trouble to enquire where Nagpore was. Whether it was inhabited or not: whether it was still governed by its old native Princes: whether it was to the found in the map near Sind, or only a few miles from Bombay: whether it was an appanage of the British Crown, or governed by the Nizam at Hyderabad: whether it was well or ill governed, were questions far less interesting than the most American questions, even less interesting than the question of the progress of the Red River settlements, or the administration of justice by the Hudson's Bay Company. Since the publication of Captain Bell's letter, however, many changes have occurred, we therefore offer no apology for entering on this subject. The transfer of the administration of the British possessions in India to the Queen, and the growing importance of India to England, have tended to secure general attention even for the interior of this vast Peninsula. And now the great cotton distress by once more concentrating attention on India will have the effect of bringing into prominence even such small sections of India as the Central Provinces which by their large cotton capabilities, and by their admirable adaptability for European colonization will prove themselves to be not devoid of interest.

The last decade witnessed great changes in India. It added British Burmah, Nagpore and Oude to our possessions. It gave birth to the rebellion of 1857; and in the extinction of the Court of Directors it saw the termination of that ancient policy which had tended to make English rule in India an anomaly. It witnessed among other things the fall of the last monarch of the line of Timur. It shewed us with startling distinctness

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what our future policy in India should be; what is our great mission in India. It shewed how important to our success here is the improvement of the masses; and that great material results can only be achieved by developing the physical resources of the country we have to govern. Nor can we with these lessons before us blame the policy of Lord Dalhousie which bequeathed to us, the government of provinces like that of which this article is intended to give a sketch.

The administration of the Central Provinces was constituted on the 2nd November 1861. The Central Provinces embrace the territories between the 18th and 24th degrees of North latitude, and the 77th and 83rd degrees of East longitude. They stretch over an area of 150,000 square miles. Their shape is that of a vast triangle. They comprise four Commissionerships, those of Jubbulpore, Saugor, Nagpore and Chuteesgurh. Their physical resources are great; but only partly developed. The great belt of the Vyndhyans stretches over their entire length. On those central elevations are many sites for sanataria, and many tracts at present waste which are admirably adapted for European settlements. There is much in the varied features of the scenery which characterize these provinces that will bear comparison with some of the best parts of India. Where the country is intersected by hill ranges, the wildness of the scenery presents some points of resemblance to the districts which border on the Sub-Himalayan and Sewalick ranges. Over a great portion will be found the diversified features that are so often to be met with in the Punjaub and in parts of Oude—extensive cultivations, large tracts overgrown with high grass, wild jungles and sandy plains. Like the Punjaub, too, it has many large towns, and some villages which are large enough to rank with towns, large tracts of uncultivated land, and strips of wastes overgrown with stunted brushwood and rank grass, where few sounds except the ring of the axe, or the cry of some wild bird, break upon the ear.

The city of Nagpore is situated about two miles from the civil station. It is not so regularly built, neither does it possess so much an air of cleanliness as the city of Jubbulpore. It is one of the largest native towns in these parts. It retains nearly all the larger houses built by the Malratta nobility during the reigns of its Mahratta kings; and its few small regal palaces are still objects of considerable interest. A few miles distant from the city is Paldee. It is now in ruins. Thirty years ago it was the country residence of the Nagpore kings. To the north west is a court now dilapidated. Like the Caliph Vathek's the hall is of large dimensions, and very long; with small block

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windows and doors. To the west are a number of smaller courts and a temple. Not far from it is a bungalow built for the reception of European travellers or visitors, and in the neighbourhood the magazines, store rooms or old arsenals of its former sovereigns are still to be seen. At some distance, a few tumuli, and mounds of earth still visible, indicate the spots where the Nagpore kings used to review their troops. Viewed by moonlight, with its surrounding fields and jungle, Paldee has a dull sombre and deserted appearance. It stands amidst extensive fields a relic of past oriental sovereignty. Many a wild tale is still related of it, associated as it is with the last rule of the Mahratta kings—tales of Bacchanalian orgies which surpassed those of Babur; of nightly revels and deep debauch which would have done credit to the court of the King of Oude.

It is to be regretted that no efforts are made to rebuild or at least repair edifices like these. In Agra and at Bejapore, in Delhi and at Lucknow some of the finest of native structures are rapidly becoming ruins. Indeed it will soon be no easy task to repair these massive structures.

Seetabuldee Fort has been so often described that we shall here only say a few words upon the geological formation of the hill on which it is built. The hill is trappeau, and but slightly elevated. The surface of the rock is nodular trap. Below, there is a fresh water deposit, clay, and underlying the clay is to be seen the amygdaloidal trap which rests on the basaltic outflow. The hill commands a view of the city on one side, and of the station on the other. To the north-west is the small trappean table elevation which borders on the station. Towards the south and east extensive fields or occasional patches of waste land overgrown with shrubs meet the view; beyond can be seen the granite range of Ramteak, the basaltic elevations of Colarmet and Joonapanee, as well as the points of Munsur, Sonedehi and Gordpar which have been taken up as Trigonometrical stations of observation.

There are few districts more interesting geologically than that of Nagpore. It is here that those extensive effusions of trap are to be seen which form a portion of the great basaltic district of India, extending over more than two hundred thousand square miles. Equally interesting is it from the circumstance of having three distinct formations: running parallel to each other—granite, sandstone and trap. Small as this tract is, scarcely extending over 25,000 square miles, it yet contains, besides these three well marked series, insulated hills, indicating in other localities an intrusion of plutonic rocks or an upheaval of metamorphic strata.

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The recent fossil discoveries of Mr. Hyslop and Mr. Hunter have thrown much light on the geological era of the strata of this district. While up to this present, of the geology of Sinde we know nothing besides the fact of a few bones of mammalia and a few fossilized foraminifera having been discovered; while with the exception of a few silicified palms no fossils have been discovered in the Saugor and Nerbudda Territories; while we know still less of the fossiliferous remains of the sandstone deposits of Bundlekhund and the country in the vicinity of Agra and Ajmere; and scarcely enough of the sub-Hymalayan ranges to enable us to decide whether they belong to the eocene of the tertiary, or cretaceous of the secondary rocks, we have in the Nagpore Territories, through much careful research, reliable data to go upon. There are many localities where distinctly marked organisms have been found in the sandstone strata. At Taklee no fewer than ten species of Coleoptera were found. It is amongst the fresh water formations, between the underlying and overlying trap that perhaps the greatest number of fossils have been found.

Some interesting fossils were also found embedded in the sandstone strata near Kampti. In the collection made by Mr. Hyslop were some cycloid fish scales: these were unenamelled, but in some of the ganoidians a slight trace of the enamel might still be seen. Among the fresh water Molluscs the following species may be enumerated:—

Melania	Balimus
Paludina	Lymnœa
Valvata.	Unio.

Sixty miles south of Nagpore, amongst the wild sandstone ranges and not far from Mangali Mr. Hyslop discovered the cranium of a reptile. It was subsequently identified by Professor Owen as belonging to the species of Brachyops Laticeps. The age of these rocks should not be older than jurassic or triassic. There is between the general physical appearance of the Nagpore district and that of the Saugor and Nerbudda Territories a very remarkable difference.

There are not the same marked varieties of hills and plains, streams, rocks and valleys which lend so much picturesqueness to the Nerbudda basin. There are no wild ravines intersected by brawling and tumbling mountain torrents. No banks fringed with the knotted and gnarled branches of the Terminalia Arjuna* like those of the Mahanuddee in Purgunnah Sonepore, the Nerbuddah in Burrella, the Pench in Seonee, or the Machna

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* In the Vernacular the Kowah.

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in Baitool, no forests teeming with the ever glancing and intertwisting bamboo, or glades deepened with the shade of the funereal drapery of the Tilandsia.*

The principal hills in the Nagpore Territories are those which form its Northern base. Extending in a direction from North to South between the parallels of 21° and 22° north latitude, they are not so much detached ranges as the termination of a series of extensive plateaux which extend from the Mahadeo hills in Chindwarra on the North West to the Langi hills on the South East. These hills very nearly throughout their entire length present a bold and well marked outline. Rising to more than two thousand feet above the sea level in the Mahadeo hills, they extend in a continuous line in an easterly direction through the entire length of the Nagpore Province. It is between Chindwarra and Mooltye that those wild ranges are found in the centre of which are the fortresses of Deogurh and the hill villages of Gurgoozur and Malaree. Further South in bold and well defined outline can be seen the escarpment of the Chindwarra and Seonee table land abutting on the plains near the village of Doongurtal. At the Kurai commence those ascents which lead to the pleasant station of Seonee. Further South beyond the valley of the Weingunga are the Langi hills which at the lowest calculation rise to an elevation of more than two thousand five hundred feet above the sea level. The surface rock on the scarped sides of these plateaux is often red sandstone. This is underlaid by yellowish concretionary, and argillaceous shales. The base in many parts is formed of a thick debris of fragmentary rock broken off from the sides by the action of the weather and in others of a thick subsoil of red clay.

There are few places where the disintegrating and denuding forces of rain are better seen than among the hill districts of India. Amongst the colder regions of the temperate zones rain through it falls more frequently during the year than in India is generally less powerful in its intensity and less destructive in its effects. The Greenwich Observatory calculations shew the average fall of rain in London to be not more than 24½ inches. Among the bleak regions of Sweden and Norway the average is still less. In India, in Bengal, and the North West Provinces where a fierce warm season is followed by heavy and protracted rains, the fall in a single day has been known to exceed thirty inches. Among the Sewallick and Sub-Hymalayan Ranges,

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* The Tilandsia is known also to grow wild in America. The traveller approaches to the cemetery of Bonaventura through a mournful avenue of oaks, while on either side is a wilderness hung with the tilandsia.

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over the elevations of Darjeeling and more particularly over the line of the Western Ghats in the Deccan, amongst those wild regions and rock fastnesses where the first Mahrattas built their fortresses, the annual fall of rain has sometimes been known to exceed 500 inches. In Central India, where there is scarcely any severe hot season, the fall of rain though not nearly so much, is still considerable. The effects of these rains are seen in the wild luxuriance of the vegetation which covers these hills in several localities, in other parts in their tendency to denude the rock of its associated clay, to bring down boulders and debris, to sweep down fragments of rock into the streams below, to dam hill torrents and to form natural lakes until the rock barrier has been swept away, to convert solid strata into a loose detritus, partly argillaceous and partly arenaceous, and to produce those inequalities and alterations in outline of surface and escarpment which lend so much picturesqueness to hill and river scenery in India.

The escarpments of these hills are as strongly marked as that of the Vyndhyan table land on the North of the Nerbudda. In orographical features they are alike. In general lithological characters they present the same features. In outline they shew the same bluff headlands, the same steep cliffs: the same sub-lying undercliffs. Where the rivers descend they sometimes as in the case of the Tons tumble over the edges of the plateaux in a succession of low falls: or else flow between parallel gorges, and over gentle slopes.

Towards the Puchmurries these ranges become more irregular in outline, and present to the view, instead of a single continuous chain, several detached groups. Those who have visited these hills have remarked the beauty of the groves, the richness of the scenery and the park-like appearance which some of their more wooded plains present. Indeed, there is much that is picturesque about these hills. It is here that the Mahadeo hills present those irregularities of outline and contour which lend to them an appearance of wild and abrupt grandeur. It is amongst the Puchmurri groups that those steep sides, prominent peaks, abrupt falls and strongly marked contours are seen to most advantage. Situated as they are amongst the wildest parts of the Mahadeos, they attain a height of more than 4,300 feet above the sea level, and exhibit a succession of extensive plateaux admirably adapted for the site of a future station, the seat of the local Government of these Territories. Those who would look for abrupt and wild scenery among the Highlands of Central India, will find it amongst these localities. Situated amongst wild and dense jungles, there have not been many who

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have visited the Puchmurries. Those who have have been charmed with the natural beauty of the place, and the park-like appearance of its scenery.

There is a very striking resemblance between the sandstone formations South of the Nerbudda, and those which form the Mahadewas. In general lithological character they are not much dissimilar. That peculiar formation of the Kymore and Bundair groups, running parallel to each other with deep intervening strata, indeed is not to be found on the South side of the Nerbudda; but from the very small palæontological remains yet found there is much reason to believe that both were similarly deposited; and that the trappean effusion which is so marked on this side, and of which scarcely more than a trace is to be found on the other, was produced by the same volcanic forces. Unlikely as it would appear, the Vyndhyan formations have already been traced into connection with the stratified rocks of Delhi and Agra. A yet nearer connection may eventually be discovered between the Mahadewa and Kymore groups than has yet been found to exist.

The bearings of the scarp are North East. Granite and crystalline rocks underlie the base. The sandstone ranges of the Kymore or Bundair on the north of the Nerbudda, as well as the sandstone ranges of the Mahadeo and Satpuras on the South, appear, as Mr. Medlicott writes, to have partaken in some great 'phenomenon of upheaval.' There are indeed two circumstances which would strongly favor that theory. Each viewed alone would in itself be a very strong *primâ facie* ground for the induction of that belief. The first is, that in these sandstone groups the lower strata are found invariably to rest, often unconformably, sometimes only horizontally on hypogene, plutonic or metamorphic rocks: the other is, and it is a feature which has struck geologists before, that no denudation or sedimentary deposition could have worked out unguided or have produced the wonderfully continuous direction of the scarp. From this table land can be seen distinctly the distant ranges of hills which lie to the South, and which form the principal ranges of the plutonic rocks of this district. These from their vertical nature, and from their nearness to the trap beds indicate very strongly their igneous origin. Amongst them are to be found granite, gneiss, felspar pure and quartziferous hornblende and various schists. There are in this vicinity very few strongly marked instances of well defined foliated micaceous schists. There is abundance, however, of that character which has its type in the siliceous and felspathic rocks of the Nerbudda basin.

Mr. Hyslop who has given much of his attention to the

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geology of the Nagpore Province, thus writes of the mineralogical character of its quartz rocks.

'The quartz rock yields gold, but the principal ore that it 'yields is iron. This ore may be obtained in immense quantities 'in the district of Chanda, both on the East and West of the 'Weingunga. Near Dewul Gaum, only three miles from the 'East bank of the navigable stream, which communicates by 'the Godavari with the Bay of Bengal, in the midst of a level 'country covered with jungle, there is a hill named Khandesh-'war consisting of strata tilted up at an angle of 60° or 70°, the 'dip being to the north. The summit of the hill is about 250 feet 'above the level of the plain, 100 feet being gradual ascent 'through jungle, and the remainder an abrupt wall of naked 'rock. The iron ore is for the most part specular, though many 'specimens possess polarity, and seem to be magnetic. It is on 'the surface of the slope that it is most valuable; but the whole 'mass, from an unknown depth under ground to the highest peak 'above it, is richly laden with metal. This single hill might 'furnish iron for the construction of all the rail roads that shall 'ever be made in India, and, with its abundance of fuel and cheap-'ness of labor and convenience of situation, it is admirably 'adapted for an export trade to every part of the country. But 'besides this locality, there are others in the neighbourhood 'which could each contribute an unlimited supply of the same 'indispensable metal. Among these may be mentioned Lohárá, 'Ogalpet, and Melápár, Bhánápúr, Mendá and Amjawahi, which 'are all on the West of the Weingunga, and at all of which 'places the ore seems to occur in quartz, and is sometimes 'granular but for the most part compact.'

At Ramteak this class of rocks is most strongly developed. The granite in this locality may be taken as typical of the granite of the country; and will be found not to be much unlike that which forms the long range of the Gurrah hills of the Jubbulpore district, on which the old building of the Muddun Mehal stands. Running parallel with this range the granite might be traced throughout all the country covered with the schistose formations.

A line drawn from Baitool to Bundara will indicate as nearly as possible the commencement of the great trap beds of this district. The South West side is bounded by the Wardah. On the East it stretches far beyond the Weingunga. The hills are for the most part flat topped, but where the effusion has been considerable, extensive plateaux as at Mooltye and Nagpore or Taklee are to be found. No one who has once visited these plateaux or observed the minerals of these rocks could

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fail to have been struck with the high igneous fusion to which they had been subjected.

Greenstone, claystone, amygdaloid and porphyry are to be seen imbedded amongst these rocks. It is difficult to state positively whether the granite of this district is older than the trap. To us it appears, although this theory may be opposed to Mr. Hyslop's, that the trap is posterior to the granite. The granite appears to have been the first to penetrate above the surface and to heave up the sandstone and stratified rocks, throwing them up from their horizontal positions into vertical cliffs or ranges, insinuating itself among the bands of the metamorphic strata, or in volcanic masses overflowing like liquid lava. There are two traps the underlying and overflowing. Mr. Hyslop describes their relation thus.

'Before either of the volcanic rocks was poured out in our area, 'there had been deposited on the sandstone, a stratum which must 'have been at least six feet thick. Over this there was spread a 'molten mass of lava, which hardened on the surface of the stra- 'tum; and itself cooled into a flat sheet of globular basalt about '20 feet thick. After a period of repose, the internal fires again 'became active, and discharged another effusion, which insinuated 'itself between the sandstone and superior deposit; and ac- 'cumulating in some parts more than in others, through force of 'tension ruptured the superincumbent mass, tilting up the stra- 'tum, and scattering the overlying trap, or raising both stratum 'and trap above the level of the plain, either left it a flat topped 'hill, or with boiling surge, pushed up its summits gradually or 'by fitful efforts. In these convulsions, the more recent trap, 'where it has not tilted up the deposit altogether, has generally 'encroached upon it, entangling some of its fragments, con- 'verting the greater portion of it into a crumbling vesicular rock, 'or producing miniature outliers of amygdaloid from materials 'susceptible of the change.'

Such are a few of the principal lithological features of the Nagpore Province.

No Geological survey party has as yet been deputed to explore these interesting tracts. Yet to the Geologist the country would prove an interesting one. In some parts the scenery is truly delightful. It is, however, among the wilder recesses of its hills, or among its higher elevations that the traveller is most gratified. There is throughout a wonderful diversity in the scenery. Differences in geological strata will often be betrayed by differences of contour; and the nature of an escarpement will sometimes indicate the limits of a geological boundary. The escarpment of the Mahadewas is distinct from the escarpment of either

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the plutonic rocks of this vicinity, or the low line of the basaltic hills which lie beyond them to the South.

By reference to a map the reader will find that the principal rivers flow from the line of the Mahadewa hills. It is from these elevations also that some of the largest rivers of Central India take their rise. The Weingunga rises from among the elevations of Seonee, and after flowing through the districts of Bundara and Chanda unites with the Wardah and empties itself into the Godavery. Further to the West the Wardah takes its rise. It is joined by the Pain Gunga, and by the Punnah. Rising in a marsh, and scarcely coming up to the dignity of a rill at its source, the Taptee supplies near its commencement, the sacred tank of Mooltye, flows parallel to the Satpoora range, passes through the wild and hilly countries of Asseergurh and Berampoor, and enters the gulph of Cambay not far from Surat. These rivers are fed by the tributary mountain torrents that flow from the Mahadewas. They are fed also by those streams which take their source in those numerous elevations which are to be found so frequently throughout Central India.

From each hill range during the rains there dash down turbid mountain torrents which overflowing their beds, assist in fertilizing the earth. Using the same channels every year, they have hollowed out for themselves passages among deep rock strata; or extending over the softer earth of the plains have spread themselves into broad rivers. The banks of such rivers are often steep and precipitous in the vicinity of the hills, but they become less abrupt in sandy plains or level fields.

Of less importance than these in the Nagpore districts, and in the wild and hilly tracts of Chuteesgurh, are the Kanhan and the Pench, the Kolar and the Mahanuddee, the Sew, the Kutsoo and the Joak. Though these streams are scarcely navigable, there is no reason why they should not be made available for artificial irrigation. It was a remark made by Col. Baird Smith, that 'while in India nature had done every thing, and 'while there was nothing whatever to conceal the practical value 'of her arrangements from our knowledge; nothing whatever 'had been done by the Government to turn these advantages to 'its own good, or the good of its subjects.' This remark is peculiarly applicable to the Nagpore Provinces. With great facilities for irrigation, no effort has yet been made to bring into practical use the numerous streams which in every direction intersect these provinces. The review of the history of the government of these provinces for the past, so far as the introduction of any works of public utility are concerned, will

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present but a dreary waste, unrelieved by a single redeeming feature. Unlike Tanjore, and the deltas of the Cauvery, Kistnah, and Godavery, where ancient water works indicate the early age at which irrigation works had there been developed : unlike the provinces of Upper India, where extensive canals have been excavated ; in these districts, rivers, streams and tanks have always been suffered to lie idle. No great name like that of the Rajah Veeramun in the province of Tanjore, like that of the Bheem Rajah in Saugor and Bundelkhund, like that of Runjeet Singh in the Punjaub is mentioned amongst the natives as having deserved well of posterity by giving to them works of any public utility.

Much as yet requires to be done in these districts to improve the communications by water. In the Sumbbulpore Division many years ago goods were brought up over the Mahanuddee as far as Rajoo. Supplies from Calcutta by the Sew River have been landed twenty-six miles from Raepore. It is not a year ago since the gunboat *Mayflower*, despatched by the Madras authorities for the opening out of the Weingunga and Wardah, made its way to within five miles from Chanda. The Godavery in its upper source through the Nagpore Province offers the finest field for engineering success. Like the Nerbudda owing to rock barriers it has hitherto been almost impassable. Through its entire length three considerable rock barriers, at different distances from the sea, oppose difficulties of no inconsiderable nature. There are some rapids and a few shoals ; still the difficulty may be overcome. In places where the obstructions offer the greatest difficulty to engineering skill, canals might be dug. Until that is done, steamers might ply between the barriers, and roads running parallel to the banks might be constructed at a small cost in order not to delay the transit. Already sanction has been obtained for the improvement of this river ; and though perhaps one million sterling will be required, the vast results that may fairly be looked forward to, and that would assuredly be obtained, will more than repay the amount spent on it.

Last year the Nizam ceded to these Provinces the left banks of this river. With the Wardah the river way for an outlet to the large cotton supplies of Nagpore would thus extend over more than 800 miles. In August Mr. Temple went down to Chanda, when we may suppose he gave this subject the consideration which is due to it. Between the Nagpore districts, and the Upper Provinces on India, there is in one respect a very striking difference. In Nagpore as well as throughout the Central Provinces no river has as yet been made use of for purposes of navigation. The traveller does not meet with those wide streams

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which fertilize for many miles the tracts of country through which they flow. No boats are ever seen carrying the produce of one district to the marts of the other. A few rude canoes, each hewn out of a single trunk, scarcely large enough to carry the solitary fisherman who alone can guide it, are the only boats ever seen on these streams. With the exception of the few larger rivers already mentioned, the rest flow through the wildest tracts covered with primeval jungle, or dash over rocks through deep and impassable channels, very picturesque, wild, and abrupt, but for all practical purposes of navigation, or irrigation quite useless.

Next to the rivers the tanks, of which there are several in the Nagpore districts, claim attention. Some of them are very pretty. Skirted by large trees on their banks, or only a still and placid piece of water reflecting naught but the clouds above, there is scarcely a tank which does not lend something towards the beauty of the scenery. Many of them as the tank at Mooltye, the one at Seonee, and the lake at Saugor, are flanked with stone steps which lead down to the water's edge. Not seldom ruins of old temples amidst embosoming trees are seen reflected on the margin of the water. Sometimes the stone steps, are overgrown with moss. This is particularly the case in Baitool and Jubbulpore, on the water edges of old ruined temples and on the surface of broken rock lying on the margin of these tanks. It is very pleasant where every thing has been embrowned by a tropical sun, to see these evergreen coverings, silently growing among craggy rocks, quietly and noiselessly enfolding amidst their tender tresses the old and crumbling ruins which but for them would long ago have mouldered away. The largest tanks are to be found in the Saugor and Jubbulpore Districts. In the Wein Gunga District also are to be found some very large lakes. The Nawagaon Bund of Pertaubgurh is nearly twenty miles in circumference; while the Seonee Bund at Sabungarhee is scarcely inferior in size to the Raneetal at Jubbulpore. There is a large artificial tank near the city of Nagpore, and also at Kallode, Mansur, Mooltye and Ramteak. In his Report on the Revenue administration of the Nagpore Province, Mr. Temple remarks 'that the people appear to be neglecting 'their tanks; and he trusts that measures will be taken to 'keep them in repair.' Depending in Central India as the crops do on rain, it is impossible adequately to estimate the advantages which must result from any system which would extend artificial irrigation. Water in the East is a power. Whether in the scorched plains of Scinde, or the rich regions of the Punjab,

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whether in the Provinces of the Gangetic valley, or in the plains of the Nerbudda basin the profits resulting from irrigation works are more than fourfold the original capital invested. Wherever water flows, whether rippling in natural torrents over pebbly banks, or winding quietly in artificial channels, freshness and verdure attend it. Under the native rule its value was far more understood than it is now. The ruins of the canals and aqueducts of Shajehan and Runjeet Singh in Upper India still attest the care and labor which had been bestowed on those works. In the Nagpore District to the present day is to be seen a long line of waterworks connecting one of the largest tanks in Taklee with the city of Nagpore. Even under the native Government those works paid. Rents were levied from water grown produce, from water mills, from lands irrigated by water, from water carriage transit.

The principal crops in the Nagpore Province are wheat, rice and other cereals, opium, sugar cane and cotton. The principal staple of consumption is wheat. Rice is extensively consumed: animal food only in small quantities. The people in these Districts are not so strongly built as the men in Oude or the races in in Upper Hindostan. The Mahrattas, however, are nearly all active; they are far more athletic than the races in Bengal or the people in South India. This might to a certain extent be owing to the fact that rice is not so extensively used in Central India, as in Bengal or in South India. The rice plant is only grown in the vicinity of tanks. As a rule wherever rice is the staple food, the race becomes enervated. It is not surprising then that the people of these districts should be physically inferior to the men of Upper Hindostan, but superior to the men of Bengal.

It would be interesting to give a slight sketch of the Mahratta races of these districts. To the present day they retain something of the old military spirit and love of lawless gain which characterized them as a race when they first sprang into existence; and which for so long a time made them the terror of the rest of India. Less barbarous in their manners and customs than the Rajput races, they have not the vanity to carry their claims of ancestry to any great length. The Hindoo of the Gangetic valley, loves to trace through the mist of past ages the origin and achievements of his race. The feeling is perhaps a weakness with all savage tribes. The people in Ceylon still point to the bridge over which the first of mankind walked; and to the apple which still bears the mark of that fatal bite which led to his fall. The Burmese still aver that in the first ages their old men lived through a period of years

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which could only bear a feeble comparison with the number of rain drops which fall annually on the earth. The Mahrattas scarcely look further back than the time of the earliest of the Sewajees. The first of the Nagpore Mahrattas came originally from Kandeish and Berar. Under the Mahratta Kings of Nagpore they held all the principal offices of the State. At the present day some of the most influential of the proprietary classes are composed of Mahrattas. Among the agricultural classes, there are two castes, the Gharee and Mahratta Koonbees, who are the descendants of those horsemen and camp followers who attended Ragojee in his first expedition into the Nagpore district. There are several other sub-divisions of the great Mahratta family, who all claim to have originally come from Mahratta, and who in customs, manners, dress, and physical appearance bear a very strong resemblance to each other.

Next in point of interest to the Mahratta population are the Gonds. There are few races more remarkable than the Gonds. They are, or may have been, the aborigines of India. In the oldest of Hindoo and Puranic legends they are mentioned as an ancient race. As the tide of conquest poured in, it is not unlikely that this race, still remarkable for primitiveness, and still distinguished from the other races in India by strong peculiarities of language, manners, habits, religious worship and bearing, had retreated from their enemies, and found a shelter, amidst the deep recesses of the hills, or in wild and thick jungles. It is not unlikely that like the Red Indians of America, this race kept itself distinct from all other races. We still find them so: whether among the slopes of the Sewalick, the wild regions of the Sonthal country, among the table lands of Central India, or the steppes of the Western Ghauts. Every where they manifest the same physical organism—the same characteristic evidences of a stunted growth—obtuse features, a dull and heavy look, dark complexion, and features which unmistakeably indicate the life of barbarism which has been theirs from the very earliest ages. They have no written language. They have never assimilated with the Hindoo, by whom they are looked upon as an inferior race. In those villages where they live together they are held in as much abhorrence as the outcast.

The Hindoo in Central India looks upon the Gond with much the same feeling as the Hindoo of Upper India looks upon the Coles, or Bheels. Wherever free labor is in requisition, there the Gond is made to do it. Whether as 'begarees' or as coolies, as the bearer of the heaviest burthen, or as the servile agent of the most degrading work, the Gond is made equally available.

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The Gond religion is made up of the wildest superstition. Human sacrifices formed a part of their ritual. They sacrifice on different days, in order to propitiate the wrath of their several deities. The phenomena of nature, the crash of thunder, lightning, storms, scarcity of rain, are looked upon by them as so many indications of an enraged deity. Hogs, fowls and goats are offered up by them as sacrifices. Rude blocks of nodular basalt, small spear heads of iron, or the small rounded debris of magnetic iron ore, are often carefully preserved by them in the trunks of large forest trees, and worshipped underthe name of *Phursee heen.* Their other deities are of a similar nature, possessing the same attributes, manifesting the same threatening or protecting powers, and conciliated by very nearly the same rude and fantastic rites. Drunkenness is their common vice, the women are as much addicted to it as the men; wild dances are often performed and obscene songs sung while thus intoxicated. A resident of Nagpore thus writes about the Gonds of the Nagpore Province. 'Among their own community, they 'class themselves under a variety of divisions and sub-divisions. 'The former are partly local, and partly referable to differences 'in dialect. According to them there is the Gurra Gond, who 'inhabits Gurra Mundla and Bhopaul; the Raj Gond of Deo-'gurh: the Mange Gond of Bustar; the Khullotee Gond of 'the Khullotee, or lowlands, East and West of the Lanjee hills; 'the Jarria Gond of Chanda; the Maree Gond of Selingana 'and Bustar; and the Koorkoo Gond of the Mahadewa hills. 'The Manjee, Maree, and Koorkoo Gonds speak dialects distinct 'from that which is common to the rest; of the two former no 'specimens have been procured, but the Koorkoo dialect is found 'to resemble that spoken by the Lurka Coles, on the frontier of 'Singhboom. The different tribes divide themselves like their 'Hindoo neighbours into twelve and a half castes; and these 'again branch out into sub-divisions, denominated according to 'their penates, or household gods. The rules of prohibited marri-'ages and eating and drinking together are apparently as 'complicated as those of the Hindoos. The Gonds without 'distinction eat animal flesh, and they vie with the outcast 'Hindoos, in their eagerness after carrion.'

Years before the Mahomedan Princes of Delhi, the successors of Akbar and Aurungzebe, carried their arms into the Deccan, three distinct Gond dynasties held their rule at Deogurh or Chindwarra, Mundla and Chanda.* The ruins of crumbling walls amidst the recesses of deep jungles, still attest or indicate the localities

* See the accounts by the Mahomedan Historian Kabbee Khan.

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where those cities once stood. And even apart from the old cities of Mundla and Deogurh, the ruins of long lines of walls at Baitool, Saoligurh, Kherla, and Singorghur shew how extensive were the Gond fortifications. Of the royal Gond families of Mundla and Kherla not a single survivor is now left. But there are still state pensioners at Nagpore, who trace up through a long line of ancestors their relationship to the Gond princes of Chanda and of Deogurh. The Mahrattas succeeded the Gond in the sovereignty of these parts: and they were succeeded in their turn by the Mussalmans. When the Mussalmans crossed the Nerbudda, and invaded the Deccan they found three principal Mahratta families ruling, where once the Gond dynasty had been so extensively established. The chiefship of Deogurh extended from the Nerbudda to Berar, and embraced the country lying between Kandeish and Mooltye. The Guzz-Mundla kingdom extended from the Nerbudda to the plateaux of Bundlekhund, while the kingdom of Telingana, even then, as it is now, the wildest parts of the Central Provinces, embraced Chanda, Chuteesgurh and Bustar. Never civilized the Gond is still a degraded being. In Bustar and Karonde human sacrifices accompanied by the wildest rites were offered up. The Maree Gond will often be seen in a complete state of nudity, or with only a slender covering of a few broad leaves clumsily stitched together. In Bustar only thirty years ago cruel sacrifices of women and children were offered up to Duntushwaree Devee. In Karonde there existed the custom of 'putting to death yearly several human victims whose reeking 'bodies were torn into a thousand fragments for the purpose of 'being buried in the fields, in order to obtain a good return in 'the crops.' In the hills of Chuteesgur, in the more inaccessible Zemeendarees of Sumbulpore, and in the hills of Sirgoojah where they seek for no shelter beyond that afforded by forest trees, and provide no food for themselves beyond that afforded by the wild fruits of the jungle, they ate their own relatives when they had become too old to move about. Like the savages of Australia they danced a wild dance accompanied by every variety of horrid sounds, and of grotesque actions; a dance which equalled any corroborry performed by the savages of Australia. Meriah sacrifices of children were offered, and rites dark as any which disgraced the worship of Moloch were practised amongst them. The Gond population, once quite as numerous as any other class of natives in this province, appears to be on the decrease. A single season of scarcity is often marked by the disappearance of many Gond families; and Gond villages will often be seen amidst deep solitudes unoccupied by a single tenant.

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The remaining portion of the population consists of Hindoos of various castes and Moosulmans. Under the old Mahratta Government a census used to be made once in twenty-five years; and adopting their system the British Government found that the population of the Nagpore Province in 1821-22, amounted to two and a quarter millions; the Moosulmans being to the entire population as 2·36 to 100; and the Gonds as 11·8 to 100. The present population of the Central Provinces may be assumed to be nine millions.

The early history of the Nagpore Province would be uninteresting to the general reader. It is as unvaried as a history of any Native State can be. In the narratives of events that occur under Native Governments there is found very little to relieve their dullness—no acts of daring heroism, no exercise of fortitude, courage, self-sacrifice. The histories of all Oriental States display the one unvarying feature of a rapid rise, and of a still more rapid degeneracy. A strong and energetic ruler spreads, his conquests, and will often be remembered long after he has passed away. Under his feeble heirs and under the tutelage of hereditary viziers, his empire under the pressure of external and internal difficulties crumbles away.

It was thus with the Nagpore Province under the old Mahratta rulers. We shall hastily pass over this period of its history, always obscure, seldom interesting. A brief summary of that history may be sketched in a few words.

The first Rajahs of Gondwana reigned at Kherla near Baitool and paid tribute to the princes of Gurra-mundla. The other Gond chiefs held their rule in wild fortresses occupying the fertile lands in the neighbourhood. Occasionally from the more intelligent class of Hindoos a chief of greater energy would spring up and intimidated by his incursions these chieftains would pay a fine. Such a chief was Bukt Boolund, who rose into notice during the reign of Aurungzebe, and who ruled amidst the wild hills of Deogurh. This was in 1700 A. D. To him succeeded Chan Sooltan, whose widow on his death called in the aid of Ragojee Bhoonsla. The present members of the Bhoonsla family at Nagpore are descended from this chief.

In 1740 he established the Mahratta authority in Kuttack, and in three years from that date, through the treachery of a Dewan he obtained the province of Deogurh. In 1749 he extended his rule to Chanda. He then invaded Berar. With repeated successes his hopes of further conquest rose high. But in 1754 he was met by Salabut Jung and Bussy. The results of that war were disastrous. He made a hurried retreat

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to Nagpore where he died in 1755, leaving his kingdom to his sons.

So early as 1773, from the growing importance of Nagpore, an alliance with it became an object of desire to the small body of English merchants who ruled in the Bengal Presidency. Sabajee sent in a Vakeel to Calcutta, and Mr. Elliot and Col. Goddard were entrusted with powers to negociate with the Court at Nagpore. The results of these negociations were to establish an alliance between the two Governments. The Court at Nagpore bound itself to remain neutral. These terms were not kept by the Nagpore Court. In 1779 Madajee entered into a secret confederacy with the Nizam and Hyder Ali, for the subversion of the British power. What the results of this treaty were every one who has read the history of British India during that period must well know. Matched against unequal forces Col. Bailie's detachment was defeated, and the subsequent retreat of the army under General Munro rendered it almost impossible at that time to preserve our tenure of the Carnatic. Madajee had to be bought off to save our possessions in the Carnatic. Since that time until 1799 no further relations with the Nagpore Court were entered into. When at a later period it was necessary to oppose Tippoo in 1798, Mr. Colebrook was appointed Resident at Nagpore, with a view of drawing the Nagpore Government into the triple alliance which the English, the Nizam, and the Peishwa then formed against Tippoo.

After the fall of Seringapatam and the death of Tippoo in 1799, the policy dictated by the Court at Nagpore was opposed to the English Government. That policy urged the cessation of animosities between the two rival chiefs Scindia and Holkar; it urged a grand coalition against the English ascendancy, then rapidly on the increase; and there is no doubt that if this policy had been carried out Assaye would not have been so complete a victory, nor the Deccan have been so easily conquered. The fall of Gawilgurh followed the brilliant victory at Assaye, and Ragojee on the 7th December 1803 had to sign a treaty by which he was bound to admit a British Resident at his Court for the future. The Honorable Mr. Elphinstone was appointed Resident. From 1803 to 1817 no direct hostilities against the British Government were undertaken; but in that year owing to the treachery of Appa Sahib of Nagpore, and the Peishwa Bajee Rao, the battle of Seetabuldee took place on the 27th November of that year. That battle and the subsequent fall of Nagpore, obtained the cession of the territories northward of the Nerbudda,

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Berar, Gawilgurh and Sergoojah ;* and from that period too dated the general superintendance of affairs by a British Resident assisted by British officers.

There is at present no one with a valid title to the heirship of the Nagpore Kingdom. The last relic of the Bhoonsla line was the queen Unpoorna Bagee. She is now dead, and so is Baka Bagee. Among the present claimants are Joonajee and Iswunt Rao Goojur, the son of Nana Aheer Rao. But among claims so conflicting and so little based on rights it is not easy to decide. And it would be a political error to confer on either of them a right to which by birth neither have any real claims.† ~

The policy of the Government of Lord Dalhousie has secured to us a province not much inferior to Oude or the Punjaub in resources and capabilities, and superior to them in climate. It has given us a province which with some extension, and under the direction of a master mind will be inferior to few others in British India. It contains some stations superior in climate to any others in India, those on the Himalayan Ranges alone excepted. The elevations of the Vyndyan and Mahadewa ranges offer retreats, as pleasant as any which could be found away from Simlah, Darjeeling or the Neelgherries.

No one now wishes to see the old regime restored. Even the peasantry have long ceased to feel an interest in the old dynasty. They look upon the thing as accomplished. The policy of Mr. Mansell has long been forgotten. Even the old Mahratta or Mussalman chiefs, except one or two families nearly or personally interested in the question, prefer the change. And that this

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* These are the dates of acquisition.

1817	Nerbudda Districts
1818	Saugor Districts
1826	Sumbulpore
1854	Nagpore Province,
1860	Shagur and Goodavery talooks.

† Janojee is at present constituted the head of the house, and to him the payments of the stipends to the Ranees and the general control of the palace and household are entrusted.

The scale of those allowances is as follows:—

Janoojee Rajah	Rs. 90,000 per annum
Durga Baee	,, 45,000
Ananda Baee	,, 45,000
Savitree Baee	,, 15,000
Zenana, ladies and slaves	,, 38,000
	Rs. 2,33,000.

Mr. Temple's Report, p. 139.

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should be so is not surprising. The Nagpore Government under the old Mahratta Bhoonslas was a pure despotism. The heirs or the adopted successors of the first Ragojee reigned as Kings. They were alike feared and hated. There were few chiefships, and the independant chiefs exercised but little influence. There was no clanship. There were no hereditary affections binding together in one the interests of the Mahratta nobles and their followers. While there was intense selfishness, there was no patriotism. A kingdom constituted like that of Nagpore might have been difficult to conquer, but when once annexed, in spite of Mussalman fanaticism, and an occasional leaning on the part of a few of the Mahratta families to the old line, was easy of retention. The officers of the King, were paid by him; were grateful to him, were dependant on him. They were not easily seduced, and the opposition they might make would be considerable. With the fall of the King, however, they were obliged to succumb, and no fears were entertained but from the other branches of the reigning family. It was in this spirit that the treaty of November 1817 was formed, the principal clause in which was the immediate and unconditional surrender of Appa Sahib, who was then reigning. From that day Nagpore became virtually ours. What is left for us to do is the construction of these provinces into a Lieutenant-Governorship. The work which Lord Canning left undone has been left for Lord Elgin to complete. We would suggest again, as we have done before, the extension of the Central Provinces, giving them a wider area than has as yet been contemplated. While on the north, the lower base of the Bundelkhund hills and the Jumna would form their natural limits; on the south they should terminate with the Nizam's country and the Godavery. Bounded by the Bombay frontier on one side, and the old Regulation Provinces of the North West on the other, they would thus embrace the alluvial tracts of the Saugor and Nerbudda Territories—the Non-regulation districts of the North West South of the Jumna—the highlands of Central India, the fastnesses of Jeypore and Gondwanah, Nagpore, Berar and the Northern Circars. This would give us a compact palatinate. It would render available all the great cotton districts of Central India. It would give us a province in point of capabilities scarcely inferior to Bombay, Madras or the Punjaub. It would be drained by the Godavery and the Mahanuddee. It would have two of the main lines of Indian Railway intersecting it. It would have the advantage of ports on the seacoast, capable of as much improvement as

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any in the Bombay Presidency. It would make available large tracts of waste lands, now utterly thrown away and overgrown with rank jungle, for the accommodation of European settlers. The fertile tracts on the Vyndhyan, Mahadeo and Satpoora Ranges would offer facilities for the cultivation of tea, coffee and opium, much greater than those afforded in Attic Farm, Arcadia or Hope Town. It would more than any thing open out for these parts that career of progress which has as yet been denied them. In the plains of the Doon, on the spurs of the sub-Himalayan range, and on the slopes of Darjeeling where formerly the native cultivator never succeeded in forcing the growth of the scantiest crops of the most wretched pulse or grain, have sprung up farms like Attic Farm and Arcadia. In Central India, too, as in the Doons, have existed for ages past large tracts of waste land overgrown with interminable jungle and utterly thrown away. In the districts of the Central Provinces there are vast ranges of table elevations not brought to any use as yet.

The settlement of these Provinces is at present being made. If we should desire one thing more than another it would be the infusion of a better element in the old proprietary. At present, the fairest provinces in India if we except the sub-Himalayan tracts are thrown away on a class of people without any intelligence, perfectly devoid of energy and with no capital. Under them teak forests, the finest next to those found in Burmah have been exhausted for roofing purposes and for firewood. Coal and iron mines have never been worked. Miles of fine arable land of the best black soil have been allowed to run waste. That under Mr. Temple's administration there is an encouraging prospect for these Provinces none can doubt. We have already alluded to their capabilities. From the peculiar characteristics of their soil the principal sources of their wealth will, we suppose, be found in their produce of cotton and opium. The earliest attention will be given to the opium. The facts of the past two years furnish the most unmistakeable evidence of their cotton producing power. The cotton of Berar and Nagpore has during the late cotton crisis made the fortunes of those merchants who embarked in the trade. The Godavery forms the natural outlet of the great cotton produce of Central India. To the navigability of the Godavery the attention of Colonel Bruce and Mr. Temple has during the last year been given. On the 27th June Colonel Bruce left Nagpore. On reaching the Wardah 20 miles above Chanda, he embarked in a raft and got over 30 miles of river in 20 hours. He met with obstacles which he indeed surmounted; but obstacles sufficiently difficult in their nature to

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shew that shipping cotton higher than Chanda was not very practicable. He passed through a wild and unpopulated district, where supplies were scarce, and where it was difficult to see a single native; a district nevertheless to all appearance fertile, and giving occasional glimpses of splendid scenery and of large masses of luxuriant foliage. He passed over the first two barriers, and found the tramways in working order, but perhaps less satisfactory than they should be. In his report Colonel Bruce deals with common sense realities, and suggests that the navigation may be made practicable. Making Chandah the first export cotton mart, and constructing a good metalled road from thence to Mogelee, the first and worst barrier would be avoided. From Mogelee, the navigation is described as feasible, the river wide and deep. From Mogelee to the head of the second barrier the distance is 48 miles. A steamer does this in eleven hours and a half. Across the second barrier there is a good tramway. Embarking in a second steamer the traveller is easily carried from this barrier to the sea. He passes Dumoojooduinna, Dowlushwarum and other places, meets with no obstacles, and finds the journey easy. From Chandah to the sea, cotton could thus be exported over the metalled road across the barriers, and along the Godavery in less than 103 hours.

Mr. Temple examined the Godavery works later in the year. His opinion did not differ materially from that of Colonel Bruce. The cotton soil of Central India is both extensive and fertile. The climate is favorable to the growth of cotton. Both the American and Egyptian cotton plant have been found to grow in perfection. Something towards the advancement of this trade might be done by facilitating the introduction of European capital and labor. Additional impulse will be given by the introduction of an improved system of irrigation, and by the means of transit over the Godavery, and by the two branches of the great Indian Railway. The new Revenue Settlements will restore much of their old prosperity to many districts which under the Mahratta rule had been brought to the lowest ebb of pauperism. The grant in fee-simple, and the sale of waste lands will tend more, than any thing else by infusing a new element in the proprietary, to improve these Districts. With European enterprise and European capital we may hope to look for progress as great as that seen in Australia. Indeed there are many circumstances existing in India which give it a position of superiority over either America or Australia. In many parts of India, and particularly among its great central elevations, there will be found vast tracts already cultivated, large areas of culturable land, and an industrious and a numerous population. Besides its great mineral wealth there is

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an inexhaustible source of riches in the soil which only requires to be developed by English capital, intelligence and enterprise. The first European settlers in America and Australia had difficulties almost insurmountable to overcome. They found a race of wild Indians who lived by hunting, and who like some of the more savage races found in India supported a miserable existence on wild fruits and the scanty produce of the land. In India, settlers will find an ancient but a barren civilization, and a people who have left traces of their industry and labor in monuments as enduring as the obelisks of Thebes. But if material results are to be shown, and if progress is to be made, it can only be effected by an infusion of new energy in the great working masses of India.

To those who watch with interest the progress of India the Central Provinces will present an interesting study. With a large extent of territory, and with resources not inferior to the other palatinates which the policy of Lord Dalhousie left to us, scarcely any thing was known about them even so late as 1860. No reports had appeared. Nothing was known of the administration. Still less was known of the condition of the agricultural masses, or of the resources of the country.

The insouciance of Mr. Plowden had left to Major Elliott, the thankless work of getting through an accumulation of arrears. To Major Elliott Mr. Temple succeeded, and under his administration it would not be too much to say that there has been an earnest desire of progressive reform. The Revenue, Judicial and Civil reports of the past year have been printed. Improvements in roads, and in arboriculture have been suggested. New lines of roads have been laid down. A Horticultural Society has been formed. Sites for sanataria have been selected. An official Gazette has been started, and an impulse been given to the administrative machinery which will be productive of much real good. In the departments of Law and Judicial Procedure Act VIII of 1859 and the Punjaub Code have been introduced. Some attention has been directed towards lessening the duration of suits, Courts of Small Causes have been introduced, and a new Constabulary has been organized. In Revenue the concession of a Permanent Settlement has been promised to estates adapted for it, and revised settlements are being made for periods of 20 and 30 years. To Captain Mackenzie has been entrusted the regulation of settlement operations on an uniform principle.

Amongst other improvements noticed in Mr. Temple's report is one which at this early stage it would be immature to introduce. While nothing could be better than to secure a perfect proprietary title in the land and to protect tenant rights and

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subordinate interests ; it would be, we think, an error to invest native chiefs with judicial powers. The condition of the peasantry has always remained the same. The status of the middle classes, middle men, landed proprietors and Zemeendars has not deteriorated. The Revenue system in force by making them responsible for the good management of their villages has tended to improve this class. They are responsible for the land revenue. They represent the agricultural communities of which they are the constituted heads. Their rank is hereditary, but they are entirely devoid of any education. Few can read or write, and yet it is proposed to invest them with judicial powers. This would at this stage be impolitic. Totally unacquainted with rules of Procedure, justice entrusted to them would become a mockery. In such hands authority would too often be the instrument of oppression, of exactions worse than oppression, or of individual aggrandisement more criminal than both. Between the cultivator classes and the proprietors of villages there has always been an antagonism quite as great as that which existed in Europe between feudal chiefs and village serfs. The wealth of the great Indian landed proprietors has ever been based on the poverty of the agriculturists. Landholders have rack-rented their sub-tenants in the same proportion as they in their turn have been rack-rented by the government under which they lived. Under our own administration the nature of the Rent Laws has put some stop to oppressions of this nature. The one bitter complaint still made by the landholders of these Provinces is that they can no longer tyrannize over their sub-tenants; they can no longer enhance rents, or eject tenants at will. The single praise which it is ours to record is that under our administration we have striven to improve the condition of the masses. We have taught them obedience to our laws. We have given them security of life and property.

The one dark feature which disfigured all former governments of India was the studied neglect of the masses ; the human animal had degenerated, and to use the words of Gibbon, ' without art or laws, almost without sense or language, they were poorly distinguished from the other animals of the creation.'

If we are to succeed in dispelling this shadow, it will be not by giving powers to a class who can only abuse them, and who have never yet used them well, but by wisely governing through the best instruments, and by improving the material resources of the country. The triumph of our Indian Government should be a triumph over the unemployed agencies of the natural as well as over the grosser evils of the social world. The last can only be the result of time, of good government, and of better example.

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It can never be attained by giving powers to the only class whose interest it would be to abuse them.

Reviewing the administration of the past year the Editor of the *Times of India* thus writes :—

'It would be much too tedious to review Mr. Temple's re-
'port, but it may perhaps be interesting to note a few of the
'salient points. The land revenue for 1861-62 was Rs. 51,76,152,
'but there was some delay in making these collections. Dus-
'tucks had to be issued, and the Chief Commissioner remarks,
'that the issue of so large a number was thought unsatisfactory.
'It tended to excite an apprehension that in some parts of the
'country, the assessments were too high, while in other parts the
'administration was somewhat defective. Mr. Temple remarks
'that the great desideratum at present in the revenue administra-
'tion of the Central Provinces is the completion of the settle-
'ment, which though commenced more than ten years ago has not
'yet been finished. This is to be regretted. In very many districts
'the assessment is at present high, and in such districts there can
'be no progress : there is too often deterioration. Nothing so tends
'to check the growth of capital and to depress the agricultural
'masses. Mr. Temple has given this subject his earnest con-
'sideration, and measures are in progress for facilitating the com-
'pletion of the work. Several Settlement Officers have been
'appointed, and the past it is hoped will be no criterion of the
'future. An able article in the *Calcutta Review* on these Terri-
'tories, suggests that the Settlement should alone be entrusted
'to officers of large local experience; and it is a good feature of
'the administration that it has been employing the best agency
'at its command.

'In the Judicial Department the distribution of business
'amongst different officers appears to have been judicious. The
'civil work is heavy. The Revenue Department, remarks the Com-
'missioner, is in an immature and transition state, not so per-
'fect perhaps as the revenue system in many parts of India : but
'still such as would give a confidence of speedy remedy and a
'cheerful future. Like the Punjaub reports so ably written, the
'reports before us abound in praise of some of the officers of the
'province. Amongst those names we find the following officers
'prominently mentioned : Major Snow, Major Brown, Captains
'Gordon, Thomson, Baldwin, and Cumberlege, and Messrs. Cline,
'Cameron, Munton, and Chisolm.'

Rich in physical resources, with a climate almost Italian on some of its higher elevations, and superior in this respect to the North West, to Bengal and even to some of the best Districts of the Madras or Bombay Presidencies, the Central Provinces must

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in a short time, if well administered, take their place side by side in point of material interest with the Punjaub and Oude. Two more years will open out the Railway lines, which will connect them with Bombay and Upper India; and in another decade, with a large and growing colony of European settlers, we trust that these Provinces will be second to none in India.

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ART. III.—1. *Speech of* Mr. James Wilson, delivered in the Legislative Council, Calcutta, March 3rd 1860.

2. *Speech of* Mr. Samuel Laing, delivered in the Legislative Council, Calcutta, February 16th 1861.

3. *The Theory of Foreign Exchanges.* London : Effingham Wilson, 1861.

THE Bank of England is the model banking institution of the universe in the opinion of most Englishmen—her wealth is infinite—her resources boundless—her solvency impregnable—her system in every respect perfect. Few except those who make such subjects their study know anything of her history and her struggles, of the facts that her notes were inconvertible for thirty years, and at a discount, in comparison with gold, for the greater part of that time ; or that she was once reduced to the 'miserable expedient,' as Adam Smith calls it, of 'payment in sixpences.' These and similar episodes in her past history would not, however, if fully known impair the prestige which she enjoys at the present day in the eyes of most men, as the greatest, incomparably, of the banking institutions of the commercial world. Nor is the conviction that the Bank of England would be a worthy model for all similar establishments throughout the commercial world confined to the uninitiated in the mysteries of currency and banking. A large and highly influential school of political economists do not hesitate to assert that the system of the Bank of England, since its reorganization in 1844, is as nearly perfect as any human institution can be—perhaps only stopping short of absolute perfection in so far as they were unable to induce the Legislature to accept the proposed scheme in its entirety. On the other hand, however, many high authorities, of whom we need name but Mr. Mill to show that the opposition is powerful, argue that the restrictions imposed by Sir R. Peel's Act of 1844 were injudicious and even mischievous. Both parties agree in the end to be attained. They differ as to the advisability and the efficacy of the means which were employed. *Non nostrum tantas componere lites.* But as these rival parties have appeared upon our Indian stage it will be necessary to lay their conflicting views before our readers as briefly and clearly as we can : and to examine into the applicability of either or neither set of opinions to the circumstances of our Indian Paper Currency. A short sketch of the history of the

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Bank of England from its establishment to 1844, including two matters in which we are specially interested—its connection with Government as a creditor, and its management of the national debt and other public funds—will not, we hope, be considered irrelevant.

The Bank of England was incorporated by Act of Parliament and Royal Charter, on the 27th of July, 1694. At this beginning of her existence she advanced to Government £1,200,000; and was to receive from the public £100,000 per annum, of which £4,000 was remuneration for management of the national debt, which may be said to have had its origin about this time. The remaining £96,000 was interest on the amount advanced, at the rate of 8 per cent per annum. So low was the credit of Government at this period that this high rate of interest was not exorbitant. Thus at the very commencement of her career the Bank of England became closely connected with Government in the two-fold capacity of creditor and manager of the public debt. Thus began that mutual interdependence of the Executive and this great Corporation, by which, there can be little doubt, considerable pecuniary loss has been inflicted upon the community at large. At a much later period of the connexion thus begun Mr. Ricardo said—'it may be doubted whether a bank lending many millions 'more to Government than its capital and savings can be called 'independent of that Government.' But there is no doubt whatever that few Governments would be independent of such a bank. How the public has suffered we shall see hereafter. At present we must continue our history.

In the third year of the Bank's existence her notes were at a discount of 20 per cent, in consequence of her refusal to cash them during the re-coinage of the silver currency. This had become so debased by wear and clipping that re-coinage was imperatively required, and the redemption on the part of the Bank of her 'promise to pay' the amount of her notes in the new silver would have exposed her to heavy loss. In the following year, 1697, however, she was allowed to add to her capital stock £1,001,171-10-0.

In 1708 (the seventh year of Queen Anne's reign) the credit of Government had improved so much since the date of the Bank's incorporation that the former was able to borrow at 6 per cent—the market rate for loans on ordinary security. Accordingly, by an Act of that year (VII Anne c. VII) the interest on the sum which had been lent by the Bank in 1694 was reduced to six per cent. But this was effected by a further loan of £400,000, which she paid in to the Exchequer receiving for the whole

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loan, now amounting to £1,600,000, the same sum as before (£100,000) for interest and expense of management. By the same Act the Bank was permitted to cancel outstanding Exchequer Bills to the amount of £1,775,027-17-10½ at 6 per cent: and was allowed, for this purpose, to take in subscriptions to double her capital. Accordingly in 1708 the capital amounted to £4,402,343; and the sum advanced to Government, to £3,375,027-17-10½. In the two following years by two calls of 15 and 10 per cent. the capital was raised to £5,599,995-14-8, the loan to Government remaining as before. But £2,000,000 was added to the latter by the 3rd George I. c. VIII. enabling the Bank to cancel that amount of Exchequer Bills.

In 1722 the Bank purchased stock from the South Sea Company to the amount of £400,000; adding to its capital for this purpose £3,400,000. At the completion of this transaction the amount advanced to the public exceeded considerably the capital of the Bank—the former amounting to £9,375,027-17-10½; the latter £8,959,995-14-8. The Bank received from the country interest on a sum greater than its capital: that is, greater than the sum for which proprietors of Bank stock received dividends. Hence arose the distinction which still subsists, between the Bank's 'divided' and 'undivided' capital. The latter in 1746, amounted to £11,686,800; and the former to £10,780,000.

By the 4th Geo. III. c. 25, (1764,) the Bank Charter was renewed and in consideration of this renewal, she agreed to pay over to the Exchequer £110,000, subject neither to interest nor repayment. In 1782 the 'divided' capital was increased from £10,780,000 to £11,642,400. In 1800 the Bank advanced to Government £3,000,000 for six years without interest, in consideration of which the Charter was to continue till 12 months' notice after August 1st 1833. In 1807, when this sum became due, the loan was continued (without interest) until six months after a definitive treaty of peace: and in 1816, the same was continued till 1833 at 3 per cent per annum. Accordingly the permanent debt of the public to the Bank, or her 'undivided' capital, from 1800 to 1833, was £14,686,800; of which, however, from 1800 to 1816 only £11,686,800 was bearing interest. In the same year (1816) the 'divided' capital was increased to £14,553,000 at which it has since remained. It was intended that £3,671,700, which was repaid to the Bank by the public in 1833, (being one quarter of the total debt) should be deducted from the divided capital: but this was not done. It was in this year that the Bank Charter was renewed to 12 months' notice after August 1st 1855; with a proviso that it might be terminated at twelve months' notice after August 1st 1845. According

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to this proviso Sir Robert Peel carried his celebrated Act of 1844 (7th and 8th Vict. c. 32.) whereby the charter was continued to twelve months' notice after August 1st 1855.

So far we have given a brief sketch of the history of the Bank of England with reference to its capital, divided and undivided, the latter showing its connexion with the State as a creditor. The Bank's employment as manager of the national debt deserves some consideration; especially as the charge of exorbitant remuneration for the work done, powerfully urged against the Bank of England in past times, has been recently made, with undoubted justice, in this country with reference to the agreement between Government and the Bank of Bengal. By this agreement the latter is to transact the greater part of the public banking business, and to receive, in return, certain pecuniary advantages, asserted to bear an extravagantly high proportion to their supposed equivalent. This subject, interesting on this account, will not detain us long.

Attention was called to this subject by Mr. Ricardo, in a pamphlet published by him, in 1816, (*Proposals for an Economical and Secure Currency, &c.*) He asserted that the Bank of England was 'prodigally paid' for her services to the public, and was 'accumulating unexampled treasure' at the expense of the community. Certainly his facts seem to support his assertion that 'all the services performed by the Bank could be performed by public servants and in public offices at a saving of half a million annually.' It is obvious that the labor and expense incurred by the Bank in her management of the national debt and other public financial matters would not increase in the direct ratio of the increase of the amounts managed or disbursed. An establishment having been fixed and organized for the purpose of performing the functions referred to, the total amount of the sums disbursed or received might be doubled without involving the necessity of doubling the expense even of the executive establishment—not to mention the supervising officials, whose number and cost might demand no augmentation whatever. But the compact made with the Bank, in pursuance of the recommendations of a Parliamentary Committee in 1807, and which was in force when Mr. Ricardo wrote, was based upon a direct ratio between the amounts dealt with and the remuneration payable, as long, at least, as the unredeemed capital of the national debt did not exceed four hundred millions. When this sum was exceeded the per-centage of remuneration was certainly diminished; but even thus diminished it appears to have been extravagantly high, not only absoutely but relatively to the scale fixed for the lower amounst. The

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arrangement gave to the Bank £450 per million sterling while the amount of unredeemed capital exceeded three hundred millions and was below four hundred millions; £340 per million while greater than four hundred millions, and less than six hundred millions; £300, if the debt exceeded the latter sum. The Bank was also to receive £800 per million for receiving contributions on loans; £1,000 on each contract for lotteries; and one-eighth per cent for receiving contributions on profits—the Income Tax of those days. Mr. Percival undeniably made a bad bargain for the public: and what makes its badness more remarkable is, that so far back as 1786 the auditors of public accounts had reported that Government could manage the debt for £187-10 per million; while the Bank was receiving £340 per million on 600 millions, and £300 on 230 millions. The expense of managing the national debt had increased enormously, and more than in proportion to the increase of the debt itself between 1792 and 1816. In the latter year the sum paid to the Bank on this account amounted to £277,000, in the former year it had been but £99,800. But we are not to suppose that the sum actually paid to the Bank constituted her sole remuneration for the duties performed for the public. She enjoyed besides the use of large sums of public money deposited with her: her profits on which cannot have been less than five per cent. These public deposits had increased from four millions in 1792 to eleven millions in 1816. Her profits from this source, therefore, as well as her direct remuneration had nearly trebled in twenty-four years: while her labor and expense had not increased anything like two-fold in the same interval. For the ten years 1806—1816, the average amount of public money held in deposit by the Bank averaged *eleven millions sterling;* the profits upon which may be estimated, as we before remarked, at five per cent per annum. That the Bank should receive this profit, besides payment according to stipulation for services performed, appeared unreasonable, even to the liberal financiers of that day. Accordingly, it was in 'compensation' to the public for its loss, measured by the Bank's gain, of interest on these deposits, that a loan of £3,000,000 was made to Government (which we have mentioned before), from 1800 to 1816 without interest: and from 1816 to 1833, the same sum at 3 per cent interest. This 'compensation' to the public amounted to this—that in ten years the Bank gained £3,820,000, at a cost of £100,000!

So potent is the 'power of the purse' even over successive Governments of a free country, that although most of these facts were pointed out by Mr. Ricardo in 1816, and the remuneration received by the Bank of England for the management

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of the national debt proved to be excessive,* no attempt seems to have been made to reduce the extravagant rate of payment until 1833. In that year the sum paid for expense of management was reduced from about £270,000 to £120,000. In 1844 a still further reduction was made. In 1849, £95,000 was paid on this account. We are unable at this moment to refer to any later statement upon this point.†

We are far from thinking that the public functions performed by the Bank of England at home, and by the Presidency or other Banks in India, would be more efficiently performed through the agency of a Government Office. In England we know that Government offices are apt sometimes to break down, even under the weight of their ordinary duties, and still more liable to give way in circumstances of extraordinary pressure. And this takes place even when the working officials have been trained for years in the duties of their department. The management of the national debt, therefore, is, we believe, wisely entrusted to the hands of a great corporation like the Bank of England, able to command financial ability of the highest order, and so stable as to render embarrassment to Government or the nation from insolvency or insecurity practically impossible. But the very greatness of the institution, which renders the connexion between it and the public free from risk of injury to the latter in one way exposes it to danger of very considerable (but easily avoidable) pecuniary detriment in another. So influential has the Bank of England been, in consequence of her great wealth and almost invariably high character for probity and stability, that in the majority of the compacts entered into between her and the public, the latter, as we have seen, had the worse share of the bargain. This may have been partly due, no doubt, to simple ignorance on the part of the financial or other minister who conducted the national side of the negotiation of monetary matters, and his consequent inability to estimate the advantages which he was conceding to the Bank as remuneration for the services which she was to perform for the public: and let us add that so far as this was the cause of blame, the expediency of confiding complicated money business to trained

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* Mr. Ricardo estimates the net profits of the year ending 1st February 1816, derived by the Bank of England from her connexion with the State, at £520,280—probably £372,000 from deposits alone.

† It may not be uninteresting to give from a Table of Mr. McCulloch's the dividends paid by the Bank of England from 1767 to 1849 (exclusive of bonuses).

From 1767 to 1781, 5½ per cent; 1781 to 1788, 6 per cent; 1788 to 1807, 7 per cent; 1807 to 1823, 10 per cent; 1823 to 1839, 8 per cent; 1839 to 1849, 7 per cent.

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men rather than to Government officers is demonstrated. But the fact that the public interest almost invariably came off second best in these compacts was chiefly due to the wealth and influence of the Bank. Adam Smith evinces his opinion on this subject by the statement of his belief that the coinage of gold by the Mint free of charge—the seignorage on coinage being in his view a legitimate and unobjectionable source of revenue—was a job for the benefit of the Bank of England, which was, and still is, the Mint's principal customer for gold coin.

Our remarks are only intended to apply to the more complicated business involved in payment of interest on the public debt and similar transactions, when we argue that a bank is rather to be entrusted with their performance than a Government office. There are some forms, and useful forms, of paper currency which admit of being conducted with safety, convenience and economy, by a department of Government. One general objection will, of course, always be applicable to such an arrangement; namely the undoubted inexpediency of multiplying Government offices or Government officials, or in any way encouraging a tendency to bureaucratical institutions, which are almost synonymous with apathetic routine and stagnation. Waiving this, the 'cast-iron' office of exchanging paper for gold or silver, and gold or silver for paper, to which the management of paper currency may be confined, might be efficiently performed by a Government department or office. For instance, the Hamburgh system in which notes are issued only against metal (the metal in this case being silver, the Hamburgh metallic standard of value), might be worked indifferently by Government or any trustworthy corporation or commission. Again, where notes are issued partly against a fixed maximum of securities, and partly against metal, the operation is purely mechanical and might be—perhaps advantageously, certainly without harm—carried on by Government officers. For instance the Issue Department of the Bank of England might be so carried on, since its complete separation from the Banking Department by the Act of 1844, to which we shall draw the reader's attention presently. The two cases we have given in illustration differ in this, that in the former no profit accrues to the issuers of the paper; while in the latter the interest on the securities against which a certain fixed portion of the paper is issued is so much clear profit to the body which issues—deducting of course the expense of conducting the department.

The management of the Indian public debt and other financial matters by the Banks appears to us to be even more desirable than the similar arrangement at home, and to have fewer draw-

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backs to counterbalance its advantages. On the one hand, Government was far less likely than in England to command even average ability of the kind required. Even where the special talent for financial business might be available, we know from past experience that the possessor of it would find himself in an ordinary revenue, judicial or political appointment as probably as in one suited to his taste and ability. The transfer of officers from duties in which they have acquired knowledge and experience to others of a totally different kind, in accordance with official routine, or to suit the convenience of some great man's protegé or other happy possessor of good interest, has ever been, and still is, one of the darkest blots upon the Indian system of administration. To remove one department of public business from liability to this fruitful cause of mismanagement would be a great point gained; and, as a long step in this direction, the recent transfer of much of the money-business to Banks is salutary, and will soon, we trust, be carried further. The sooner the military pay-offices, especially, (and military audit-offices as well,) are handed over either to Banks or to officials who have had opportunities of acquiring a rudimentary knowledge at least of the rules of their department and of elementary arithmetic, and have availed themselves of their opportunities, the better it will be for the efficient performance of the public business and for the comfort of those who are now dependent upon the ignorance of the European officers, and the caprice, or obstinacy, or both, of their native underlings, for the receipt of their pay. The most remarkable instances of official imbecility and ignorance in the head of an office, combined with complete submission to the imperfect knowledge, and dogmatic opinions of a native 'examiner' or 'manager,' which it was ever our lot to see and suffer from, were displayed in these military offices by men whose interest formed their sole qualification for that or any other appointment.

In arranging the terms of the compact between Government and the Banks, only one of the dangers which existed in England had to be avoided in India. There was no risk of injury to the public interest arising from the preponderating influence of a powerful corporate monopolist, like the Bank of England—creditor already to the public on a large scale, and likely to intensify that relation again. The other danger did exist—that which springs from the ignorance of one of the contracting parties and the acuteness of the other. The one bargain which has as yet been completed in India is, we fear, as unfavorable to the public as Mr. Perceval's arrangement with the Bank of England—making allowances of course for the very different scales of the

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two transactions. Its duration is fortunately less; while the exposure of the mistake which has been made in one case will prevent its repetition when other arrangements come to be discussed, or this one is sifted on expiry of the present term. That a blunder was made we should have thought did not admit of dispute, after the stock of the Bank in question had exhibited so remarkable a rise immediately upon the completion of the arrangement in India, in anticipation of the sanction of the Secretary of State as matter of course. The fact that the compact was, to use military judicial language, 'confirmed but not approved' by Sir C. Wood, is, we must admit, unfavourable to our view that the agreement deserved disapprobation. That gentleman has succeeded in making himself so intensely unpopular with all classes in India, that it is difficult to believe that any sound or wise decision can come from a quarter so universally condemned; and the Indian Council thus gets the credit of any measure emanating from the Westminster India Office, to which we cannot refuse approval or assent. Setting aside Sir C. Wood's disapprobation the only argument advanced by those who assert that the terms secured by the Bank were not unduly favorable to her appears to be that compensation was due and guaranteed for the substitution of Government Currency notes for hers. The answer was sufficiently obvious, and was given very recently in the columns of a very able contemporary. To compensation the Bank undoubtedly was entitled, but compensation should have left the prices of the Bank shares as they were. So far as the change of the bank-notes was concerned, any rise in the quotations of the Bank stock was due to some thing more than compensation. Some rise was fairly to be expected in consequence of the increased profit derivable from the extension of the Bank's business, owing to the compact entered into with Government, and the remuneration which she was to receive for transacting Government financial matters. But the rise which actually took place was far greater and can be accounted for in this way: and there is but one other way of explaining it, and this is unfavorable to the sagacity of those who conducted the negotiation on the part of the public.

To return to the Bank of England, the banking system which had been established in 1826 had not sufficiently controlled the issues of country banks; their number, or to speak more generally, the number of private and joint-stock banks had very much increased during and in consequence of the over-trading excitement of 1836-37. In the year preceding that period there existed fifty-five of these institutions in England, which number

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had increased to one hundred,—notcounting branches—all of them issuing notes without any restriction. Through this means the currency became redundant and exchange depressed. Deficient harvests in 1838 and 1839 increased considerably the drain upon the Bank of England for gold. She accordingly contracted her issues ; but the other banks *increased* theirs. The efforts of the Bank of England to render the exchanges favorable resulted only in reducing her own reserve of gold to £2,420,000, in August 1839. From this alarming state of things it might fairly be inferred that some regulation of banks of issue was demanded : but it was not quite so clear that they deserved to be removed off the face of the earth, as was proposed, and the profits which they derived from their issue of paper money transferred, not to the State, but to the Bank of England, which was already too powerful a monopolist. However, the charter of the latter corporation, as renewed in 1833, had given power to the Legislature to revise or cancel it in 1845. Sir R. Peel took advantage of this to introduce and carry the Act 7 and 8 Vic. c. 32 for the regulation of the banking and currency of the kingdom. The measure embodied the suggestions of Mr. Lloyd (now Lord Overstone) and other eminent authorities on currency and banking, and was passed with general approbation on the part of the public. It has since been amply tried, and is believed by its authors and their school to have been a master-piece of legislation, by others to have been a pernicious interference with a branch of trade which ought, like all other branches of trade, to have been left perfectly free, by a third party to have effected in some degree some of the objects for which its authors designed it, but at the cost of even greater disadvantages than it obviated.

By the Bank Act of 1844 it was provided that no new banks of issue should be established in England and Wales, even in place of existing banks which might become extinct. The existing issuing banks were not forbidden to issue, (as Sir R. Peel's advisers wished), but a low maximum of issue was prescribed to them, founded upon their average circulation for twelve months preceding the 27th April 1844. This amounted to £3,477,321 for joint-stock, and £5,011,097 for private banks. The names of partners were to be published periodically.

As regards more especially the Bank of England, the main features of the Act were the complete separation of the Banking and Issue Departments, and the rigid restriction of the amount of issue—at least of that portion of it which was not merely a substitute for the gold against which it was issued. Fourteen millions sterling was a limit below which the paper

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circulation had never been known to fall. Accordingly this sum was fixed as the maximum of issue against securities. The debt of the nation to the Bank, amounting to £11,015,000, being part of the securities in question. Should the Bank effect, by private arrangement, the withdrawal from circulation of the paper of any other issuing bank, she was allowed to add to her own issue against securities two-thirds of the amount so withdrawn. This provision has been acted upon so far as to add a sum of £475,000 to the original £14,000,000. To the other portion of the issue, representing gold actually lying in the cellars of the issue department no limit was assigned. Finally the Bank is compelled by the Act to give her notes for gold at the rate of £3-17-9 per ounce, and gold for her notes at £3-17-10½, to any person at any time : weekly statements are published of issues, securities, bullion &c. &c. and Bank of England notes are a legal tender in the hands of all parties except of the Bank herself in her payments to others.

To enter upon a detailed examination of all, or of the principal arguments which have been urged by political economists on either side of the question of the expediency or inexpediency of this Act would exhaust far more space than we have at our disposal, and even more certainly, our readers' remaining stock of patience. Nor is such an examination necessary for our present purpose, which is the application of established principles to the particular case of an Indian Paper Currency. The Bank of England carries on the ordinary business of a banker—the trade in money as a commodity—as well as the work of supplying the community with the notes which are necessary for the purposes of commerce. The complete separation of the Banking and Issue Departments, effected by the Act, cannot obliterate from our thoughts and reasonings the fact that the two departments, belong to one institution. Accordingly many of the arguments for and against Sir R. Peel's measure apply only to a body carrying on both classes of operation. Such arguments are of course inapplicable to India, where fortunately the business of issuing paper money is free from entanglement with other banking transactions, and such may therefore be lightly passed over or omitted altogether. The fact that her Government is the issuer, and the existence of some peculiarities in the character and habits of the natives of India help to render the reasonings upon the Act of 1844 far less applicable to our subject, and far less useful to us in practice than is generally believed. We shall therefore pass over as rapidly as possible those objections to the Bank Act which do not apply to India, before stating those which are relevant to the primary object of

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the present article. We attach little or no importance to the neglect to regulate the use of cheques and bank post-bills. It is quite true that cheques might be so managed as to answer the same purposes as bank-notes, and that the provisions of the Act or the restriction of the paper issued within fixed limits might thus be evaded. But there can be no doubt that the legislature would interfere to prevent such an infringement of the spirit of an enactment which is still supported by the opinions and arguments of many able political economists. There is no reason to believe that the Act has had any effect upon the use of cheques by the community, nor that the amount represented by bank post-bills, which is estimated at something over a million sterling has ever exhibited any tendency to increase so as to disturb the operation of the measure. A more serious objection is the *a posteriori* one that the Act does not work without occasional violent interference with its action. It has become necessary, or has been considered necessary by financialists, on two occasions to stop the machine, in order to prevent serious mischief. It may well be said that an Act, which imperatively demanded suspension within three years of its passing with general approbation, lost prestige. But stronger language has been used by eminent political economists who assert that what has happened twice already must happen again whenever a serious monetary crisis occurs. Mr. Mill, who is not so thorough going an opponent of the Act, its principle and its effects, as others who deny it any merit or efficacy for good, and attribute to it many serious mischiefs, concedes that it does 'arrest speculative extensions of 'credit at an earlier period, with a less drain of gold, and conse-'quently by a milder and more gradual process' than if it were not in force. But he asserts that the function of Banks in filling up the gap made in mercantile credit by undue speculation is so indispensable that the Act must be suspended, as we have said above, when a crisis comes. Were this, however, its only fault, it might be maintained with a view to prevent, if possible, the occurrence of a crisis, and relaxed when the crisis comes. But he goes on to point out another stronger objection, which requires some preliminary explanation. The injury done in preventing the Bank of England, through the operation of the Act, from helping solvent firms during a commercial crisis—as in 1825-26 such assistance rendered the mischief of the collapse of credit much less than it otherwise would have been—far more than out-weighs the benefit allowed to result from the operation of the measure.

The two principal objects which the authors of the Act of 1844 proposed to secure are admitted by all political economists to be

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essential to any sound system of paper currency. The first of these is the maintenance of convertibility, the second is the ensuring that the mixed currency of metal and paper shall vary in quantity as a purely metallic currency would vary. Now with regard to the former of these conditions, the fact that under the arrangement of 1819 convertibility was provided for and maintained without faltering sufficiently shows that further precautions were unnecessary. The Bank was compelled by the Act of 1819 to pay her notes in gold, while it was left to her own discretion and knowledge of her own business to determine how much bullion she should retain in order to maintain the convertibility of her paper: and convertibility was always maintained. Lord Overstone himself admitted in his evidence before the Committee, that the Bank could at any time by a 'violent action on credit' and 'at the expense of the mercantile public,' save herself from a stoppage of payment of her notes in gold, without the provisions of his proposed measure, if mismanagement of her issues should bring her to the brink of such a danger. An equal degree of mismanagement of her banking department, against which no provision is made, would lead to a total suspension of payments, —a much greater calamity than the other. This supposed object of the Act we may therefore leave without further consideration.

With regard to the other point—that note currency should fluctuate in amount in the same manner and degree as a currency consisting solely of coin would vary—the principle is admitted by the opponents of the Bank Act as freely as by its advocates. The former, however, maintain that this essential object would be attained, more simply and less injuriously, (or rather without any countervailing injury), by securing convertibility on demand. It is true that notes may be *payable* on demand in theory, and yet not practically *paid* on demand owing to their not being presented for conversion. Payment in specie does not commence until depreciation of the currency has made some progress. Convertibility on demand puts a stop to over-issue after this amount of progress has been made, and it is possible that some inconvenience may thus arise which would not have arisen had the over-issue not occurred at all. But we cannot attach much importance to these facts, or consider that they tend to invalidate the assertion, that convertibility on demand would maintain the mixed currency at the amount at which a purely metallic currency would rest.

But the point on which Mr. Mill lays greatest stress is, that while conformity to the *permanent* or *average* value of what a metallic currency would be is essential, conformity to the

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fluctuating value is not only not necessary but injurious. The only object of the required conformity is *steadiness* of value, reducing fluctuations to a minimum. But these fluctuations in the value of a currency are dependent, not upon its quantity, whether it consist of gold or of paper, but upon expansions and contractions of credit. In order, therefore, to find what currency best conforms to the permanent value of one purely metallic, we have to enquire what system that is under which occur the smallest and least frequent variations in credit. If a paper currency which follows *all* the fluctuations of a purely metallic system leads to more frequent and more violent revulsions of credit than one not so rigidly conformable, then the currency which agrees most nearly in *quantity* with a metallic one, is not that which adheres most closely to its value, that is, to its permanent value.

In the working of the present system, when gold is exported from England from any cause, the amount of note circulation is diminished to an equal, or nearly equal, extent; the assumption being that, were the currency wholly metallic, all gold taken from the country would necessarily be withdrawn from the circulation. There is one case in which that assumption is well-founded, namely, when the exportation of gold is the last of a series of effects arising from an increase of currency, or an equivalent expansion of credit. But this is not the only, nor the most ordinary, cause of an efflux of gold from a community. Of other causes Mr. Mill enumerates four—foreign expenditure by Government, investment in foreign stocks or speculations, failure of crops of raw material, (as of cotton in 1847 compelling England to buy at advanced prices so as to turn the balance of trade between her and the United States against her) and lastly, a bad harvest, necessitating the extraordinary importation of food. In all these, and other cases which might be enumerated, the gold exported would not in the natural course of things, be withdrawn from the circulation at all, at least, not wholly by any means. In countries whose circulation is entirely or principally metallic the gold required for exportation would be obtained from hoards, which always exist to a considerable extent in such communities. In France, for instance, where the gold and silver coin is said to amount to one hundred and twenty millions sterling, hoarding prevails to a great degree: and from the hoards the metal required for exportation in the cases enumerated, would be, directly or indirectly, derived, leaving the actual circulation unaffected. In England, on the contrary, where banking generally, and the use of paper money of all kinds is carried to a greater extent than in any other part of Europe, there is little or

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no hoarding. The bank reserves, or, let us say, the Bank of England reserve is the substitute for the hoards of other communities. It follows that from the Bank reserve should be drawn the metal which in other countries would be derived from hoards, 'without any attempt to stop it by diminution of currency or contraction of credit;' unless, of course, the drain should be so considerable in amount as to endanger stoppage of payment by exhaustion of the reserve. But this consequence is highly improbable. The drain for foreign payments is definite in amount and stops of itself at a certain point. The habitual reserve of the Bank should exceed the utmost amount of probable drain, which has been variously estimated for England at seven, ten, and, twelve millions sterling. The Bank Act compels, in such cases as we have enumerated, what its principle condemns; contracting the mixed circulation in circumstances where a wholly metallic circulation would remain unaffected. The general conclusion at which Mr. Mill arrives is that while its action is undoubtedly beneficial in the first stages of one kind of commercial crisis, (that, namely, which results from over-speculation,) it, on the whole, materially aggravates the severity of commercial revulsions; rendering contractions of credit more frequent and more severe by its operation.

The circumstances of England and of this country differ so widely, in currency matters as in so many others, that the attempt to transfer a system, or even to apply a general principle to India, because the system or principle has been found applicable to Great Britain, is little less than absurd. We all remember the late Mr. Wilson's discovery that human nature was the same in the East as in the West, and that, therefore, the same system of taxation and the same principles of financial policy which worked well (or tolerably well) at home would be beneficial here. Many of us thought he was mistaken at the time, and most of us are sure of it now. In the establishment of a general paper currency for British India it was *a priori* probable that much irrelevant discussion, really applicable only to England, would arise, and that the peculiarities of India would be lost sight of, to a greater or less degree in proportion as each person interested in the question might be more or less thoroughly imbued with purely English statesmanship or English prejudice. Many of the arguments for and against the Bank Act of 1844 are utterly irrelevant to the introduction of a paper currency into India; many are of doubtful applicability, and but few are capable of abstraction from English accidents and application to the conditions of this country. There is one objection to the English system, however, which is equally and obviously applicable to ourselves. The inelastic

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limit imposed upon the amount of paper issue by the Bank Act was an unnecessary deduction from the profits legitimately derivable from the substitution of paper for the precious metals. Fourteen millions sterling was fixed, in 1844, as the maximum of note issue by the Bank of England, represented by securities, and at that amount it still remains; notwithstanding the enormous increase of all commercial transactions since that date, and the consequent necessary increase of circulating medium. 'The perfection of banking,' says Mr. Ricardo, 'is to enable a country, by means of a paper currency, to carry on its circulation with the least possible quantity of coin or bullion.' This 'least possible quantity' bears some fixed proportion to the total amount of circulating medium, however authorities may differ as to what the proportion may most safely be. The most advantageous system of paper currency will therefore provide that the amount of metal in circulation shall always be at a minimum; or, in other words, the amount of paper at a maximum. When commerce and trade increase and the amount of circulating medium necessary for them increases with them, in due proportion, provision should be made that as much as possible, (consistently with safety) of the addition to the currency should be paper. In the English system, on the contrary, no such provision is made. However commercial transactions may multiply, the amount of paper represented by securities must remain at the limit imposed twenty years ago. No doubt the quantity of paper issued against bullion may be increased indefinitely, but from this part of the paper currency, as we have seen, the community derives no advantage beyond convenience of carriage, of money and saving of wear and tear. In a little more than twenty years, between 1792 and 1816, the revenue of England was tripled, the exports more than doubled, the imports increased more than one-half: while simultaneously the paper part of the circulation was also tripled. Under the present system this proportional increase in the profitable part of the paper circulation is impossible. Previously to 1844, on the other hand, the paper currency of England amounted to £42,300,000, (the metallic being estimated at £23,000,000). This amount was, no doubt, excessive then, though it might not be so at the present day: yet it can scarcely have been so much in excess of the requirements of the community as to justify the fact that in 1857, when it was found necessary to suspend the Bank Act, the Bank of England note circulation amounted to but £21,000,000,—or £7,000,000 beyond the fixed £14,000,000—which was increased by two millions, six days after the suspension.

The Bank of England and its regulation have occupied

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more of our time and space than we intended, though not more than their importance justifies. From the preceding pages it is, we trust, evident that there are some general principles, established by authority and confirmed by experience, on which a sound system of paper currency should be based. It is undoubted, for instance, that the substitution of paper, as money, for the precious metals is most beneficial to the community and profitable to the issuers. It follows 'that the substitution of paper for the precious metals, 'should always be carried as far as is consistent with safety' (Mill); that is to say, so far as to retain only so much gold or silver as is sufficient to maintain convertibility. It follows also that since, 'the value saved to the community by thus dispensing with 'metallic money is a clear gain to those who provide the substitute,' it is advisable, for this and other reasons, that this gain should accrue to the community itself, and that it, through its government, should be the issuer. It may also be considered as established that Government should be an issuer only, not in any other way a banker. Even the amount of paper to be issued, if allowed by law to be variable, cannot with safety be left to the discretion of a Government officer or a government commission. When the operation is purely mechanical, (as it has been in the Issue Department of the Bank of England since 1844,) it might be as well, or better, conducted by Government. Two modes are suggested by Mr. Mill either of which would secure to the nation the greater part of the legitimate profit derivable from a paper issue, without involving the Government in business which it is incompetent to conduct with safety or success. 'It would be better that Treasury notes, exchangeable for gold 'on demand, should be issued to a fixed amount, not exceeding 'the minimum of a bank-note circulation; the remainder of the 'notes which may be required being left to be supplied either 'by one or by a number of private banking establishments. Or 'an establishment like the Bank of England might supply the 'whole country, on condition of lending fifteen or twenty millions 'of its notes to the Government without interest, which would 'give the same pecuniary advantage to the State as if it issued 'that number of its own notes.'

So much may, we think, be considered sufficiently established to be applied with safety to this country.* Difference of

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* *A Deputy Governor of the Bank of England,* indeed lays down that Government should not obtain profit from the paper money any more than from the coin of the country! "Neither consult with a woman touching her of whom she is jealous; neither with a coward in matter of war; nor with a merchant concerning exchange; nor with a buyer of selling." Ecclus.

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opinion and discussion come in upon the question of the best means of maintaining convertibility, or rather upon the proportion which the gold or silver retained for this purpose should bear to the amount of paper issued: and upon this subject as we have seen, widely different opinions are held. At one extreme we have those who would issue no paper without retaining an equivalent amount of gold or silver, of which system the Hamburgh currency supplies an example. At the other extreme may be found advocates of a paper currency neither convertible nor intended to be convertible, care being taken to prevent over-issue and depreciation by keeping the value of the paper on a level with that of gold or silver introduced for purposes of luxury or art. Close to this latter extreme lie cases of temporary inconvertibility of paper intended to be rendered again convertible at some future period; of which England for nearly thirty years, and the United States at present supply illustrations. Near the former extreme are the modern system of the Bank of England, and that at present being tried in India, in which the convertibility of every note is secured by retaining an equivalent value either in securities or in precious metal. Between those two extremes lie systems resembling that adopted for the Bank of England in 1819.* In these convertibility would be maintained by retaining a certain proportion of coin or bullion, the ratio of reserve to paper-issue varying according to the various habits or circumstances of different communities. That some such system would be the best suited to this country, or any other resembling it in the circumstance of having the ground unoccupied or of being about to establish a new system of paper currency of which the issue is in the hands of Government, appears to us probable in a high degree.

A banker, says Mr. Mill, uses for the purposes of his trade so much of the money of others deposited in his coffers as his judgment and experience tell him he may do with safety to their interests and his own. Similarly in Mr. Mill's opinion, a paper currency may be founded upon an estimate of the average circulation of the country. One third of his liabilities is the habitual amount of reserve of a prudent banker. In the same way might a system of paper-issue be established, in ordinary circumstances, upon the principle of retaining coin or bullion amounting in value to one-third of the notes in circulation. †

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* But free, of course, from all complication of other banking business than the issue of convertible paper money.

† Adam Smith supposes *one fifth* a sufficiently high proportion of reserve to notes.

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The natives of India are naturally a suspicious race or collection of races. In money-dealings, especially, they are prone to suspect each other of intended fraud, and to be still more distrustful of the foreigner. It cannot be denied that, from the native point of view, annexations were dictated by greed, and involved broken treaties and broken faith; that the reduction of the covenanted interest on the public debt, practically compulsory, was really equivalent to the 'composition' of an insolvent debtor, not over-scrupulous in his dealings with his creditors; and even that the Income Tax was neither necessary to the welfare of India nor equitably assessed, nor fairly collected. The repeated refusal of England to give an imperial guarantee for the Indian debt, although this measure would be an immense relief to the finances of this country, is not likely to inspire the native with excessive confidence in the honesty and purity of Anglo-Indian financial schemes of any kind: especially as the guarantee was not merely not given, which might appear to be the result of an opinion that it was virtually implied, and therefore unnecessary, but was more than once proposed and deliberately refused. The statement that the sale of the fee-simple of Indian land and the redemption of the Indian land revenue are believed by many natives to be nothing but plans for 'making a bag,' preparatorily to leaving the country, is by no means improbable. Such being the state of native public feeling, it is evident that in the establishment of a system of paper currency for India, due allowance should be made for a much greater degree of hesitation to accept Government notes instead of coin, and a greater susceptibility to groundless panic, leading to runs upon the Offices of Issue, than would be necessary in a European country. In India, therefore, the reserve should bear a higher proportion to the paper circulation than would be found needful elsewhere: nor could the substitution of paper for coin be carried with safety to so great an extent as is desirable, and practicable in other countries. But we have no doubt that Government notes might safely be issued, without any reserve of silver, or any security for convertibility beyond the pledged faith of Government, to an amount equal to two-thirds of the minimum note circulation of the Presidency Banks: the remaining third being issued against securities of some kind, which, as bearing interest, would be a more desirable reserve than coin or bullion. We believe also that in further issues of Government notes—the issues being made gradually and carefully watched—one third, or perhaps even one half, might be unsupported by a reserve of coin, bullion, or securities. As long as Government paper is be a legal tender in payment of the land revenue

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and other State claims, the probability of a run for conversion into silver will be, in our opinion, infinitesimal: while the worst possible contingency, in the practically impossible case of *all* the outstanding paper being brought in by the holders to be changed for coin, would be a temporary suspension of cash payments, inflicting pecuniary loss neither upon the people nor the State, and but slightly affecting the credit of Government, this necessarily being at its lowest when such a run as we are supposing could occur. Space will not permit us to enter into details of a scheme of paper currency founded on these principles. We proceed to examine the two systems which have been proposed and of which one is in operation.

The subject of a Paper Currency for this country had, (strange as it may seem to English statesmen and the English public), occurred to and been considered by Indian officials even before a Daniel came to judgment, in the person of an English Financier, red-hot from the anvil of the Treasury and the House of Commons. Papers by Mr. Lushington and others prove the extraordinary fact that all knowledge of currency questions is not monopolised by the self-complacent sages of the British Parliament, to whom one sometimes feels tempted to apply the ironical address of the worried Job to his well meaning but rather self-conceited friends and 'comforters.' 'No doubt 'ye are the people, and wisdom shall die with you, but I have 'understanding as well as you. I am not inferior to you.' But we shall begin with Mr. Wilson's plan, which assumed the following four conditions as essential to the soundness of a system of paper currency. Firstly, the paper must be identical in exchangeable value with the coin which it represents. Secondly, its quantity must equal that of the coin for which it is a substitute; so that the amount of paper and coin in circulation shall be equal to the amount of coin which would circulate if there were no paper. Thirdly, all laws which should determine variations in the amount of circulating coin from time to time must equally apply to the mixed currency. Fourthly, the paper must be legal tender in all payments, except those made by the issuers, by whom it is to be convertible on demand. The third of these conditions, it will be remembered, requires qualification. The others call for no remark.

In carrying out in practice a system based on these principles two things are indispensable. A metallic reserve must be maintained, sufficient in amount to ensure convertibility immediately and at all times: and there must be absolute ultimate security for the payment of every note.

Mr. Wilson proposed to entrust the business of issuing the

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Indian notes to Boards of Commissioners at Calcutta, Madras and Bombay, who were to be independent of Government, except in certain particulars specified in the Act. They were to retain as reserve a certain proportion of coin, to be determined on from time to time, but which was never to be less than one-third of the notes in circulation. Against the remainder of the issue Government Securities were to be retained; so that coin and securities together should equal the full amount of paper issued. By thus keeping a fixed proportion of silver and securities to the full amount of the remainder of the issue, Mr. Wilson maintained that not only was immediate convertibility ensured, but a self-acting limit was imposed upon the circulation, which would increase or diminish, precisely as a purely metallic currency would do, according to the wants of the community. Thus constant conformity to the third of the conditions stated above, would be, in his opinion ensured; and the notes would only be a substitute, exactly equal in amount, for the silver which they displaced.

The three chief Issue Districts were to be divided into Currency Circles, of which there were to be, (as laid down in Mr. Temple's Minute on this subject) seventeen in all; ten in Bengal, three in Madras, and four in Bombay. Each Circle was to have notes peculiar to itself, the denominations being printed in English and two native languages vernacular in the Circle. Within the limits of its own Circle the paper was to be absolutely legal tender; beyond them, not: and convertible on demand only at the Issue Offices of the Circle and of the Presidency to which that Circle belonged. Notes of conterminous Circles would be received by Government in payments, indifferently; but would not be re-issued from any Office but their own—being retained and periodically exchanged. The notes would have been introduced into 180 districts of British India, and exhibited fifteen different native languages in their denominations. When the system was introduced and in working order, the silver obtained at the branch Offices of Issue in exchange for Government notes was to be sent to the Central Office at the Presidency for investment; the amount sent by each branch being credited to that branch and available for it in case of need. Finally, as to the denominations of the notes, they were at first to be for five, ten, twenty, fifty, five hundred and one thousand rupees; and it was intended that afterwards notes should be issued for less than five rupees.

Such was Mr. Wilson's Currency Scheme, which appears to us to have combined ample security with considerable and legitimate profit to the State: and to have been very much superior to the plan substituted for it and now upon its trial. It

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seems to have been an imitation of Mr Ricardo's *Plan for the establishment of a National Bank*, which it follows even to its defects. This plan, the outlines of which we give in a note,* is contained in a posthumous paper, dated 1824. The division of the country into Circles or Districts, which appears to us to be the weak point of Mr Wilson's scheme—the notes of one district not being convertible in any other—was objected to by a friend to whom Mr. Ricardo showed his manuscript, as likely to be productive of much inconvenience in the provinces. The author was of opinion that some very simple arrangement might be devised to obviate that disadvantage, but none was added to the original plan. It ought to be an object with all Anglo-Indian statesmen to take every opportunity of introducing throughout the whole of British India uniformity of currency, and of weights and measures. Government notes ought, and ultimately will, circulate throughout the country, being legal tender every where and practically convertible at every Treasury. The Circle system threw needless impediments in the way of a most desirable object. The system now in operation is comparatively

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* Mr Ricardo proposed to take the Issue Department altogether out of the hands of the Bank of England, and to give its duties and its profits to the State. He obviated the objection that Government would abuse its power and refuse to convert its paper on demand in case of war &c. by assigning the power of issue, not to Ministers, but to Commissioners removable only by vote of either House of Parliament, and having no money transactions of any kind with Ministers. When ample funds should have accumulated in the hands of the Commissioners, they were to go into the market and publicly buy Government securities. Only when, from increase of the prosperity of the country, increase of currency should be required, would it be expedient to invest in other interest-bearing securities: and, in the contrary case, these, or part of them should be sold. On the expiration of the Bank of England Charter in 1833, the Commissioners would issue fifteen millions of paper, a sum equal to the amount of Bank capital lent to Government. The annual interest on the three-per-cents should then cease. With ten millions more the Commissioners would buy as much gold bullion as they should deem expedient, employing the remainder in the redemption of part of the public debt to the Bank on exchequer bills, which were to remain at the disposal of the Commissioners. The Bank was to redeem its out-standing notes with the new Government papers. Agents in all the principal towns of England would, on demand verify by their signatures the genuineness of notes presented to them; after which process those notes would be exchangeable only in the District where they had been thus verified. Notes issued in one District or verified by an Agent's signature in one District, would not be payable in another: but by depositing them at the Issue Office of the former a bill to the amount might be obtained payable in the other District in its own notes. Notes issued in the country would not be payable in coin in the country, but by bill on London, payable either in coin or in London notes. The Commissioners were to be obliged to buy gold at £3-17-6 an ounce. They were also to exchange their notes, on demand for gold coin. One pound notes were to circulate for one year in London, but permanently in the country.

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free from this defect, the number of circles being reduced to three. In this point only does Mr. Laing's scheme seem to us to possess any superiority over Mr. Wilson's.

It cannot, we trust, be necessary to defend the latter against objections made on the ground that it is inexpedient that Government should derive any profit from the issue of paper money. It was Mr. Wilson's avowed and most legitimate intention to devote a large proportion of the silver for which Government notes should be substituted to the discharge of Government liabilities, and the consequent relief of the finances of the country from the burden of a large amount of interest. Convertibility on demand and ultimate payment of the Government issue being secured, as they would have been, in our opinion, by Mr. Wilson's scheme gradually and cautiously introduced, two thirds of the coin displaced might beneficially have been employed in the manner we have mentioned.

In a paper devoted principally to the subject of our Indian currency, which appeared about three years since in a well-known English periodical, Mr. Wilson's proposed Paper Currency Scheme was examined and roughly handled. The article in question was by no means an able one, but, on the contrary, displayed a painful degree of ignorance on the subject generally, and of principles almost universally admitted. A writer who denies the necessity of fulfilling any of Mr. Wilson's four preliminary conditions except the first—(that paper money should be identical in value with the coin which it represents)—asserting to the contrary, for instance, that the quantity of paper in circulation need not be equal to the amount of coin displaced; who maintains that the silver imported into India from Europe, (estimated by him at 39 millions sterling in the three proceding years) remains in circulation *and raises prices*, as it is coined and added to the currency because there is so little demand for silver in this country 'for purposes of manufacture'; who asserts that 'the quantity of 'silver which can at mint price be easily and at once disposed of 'for coinage is unlimited,' and thence concludes that a paper currency will not withdraw *any* metal from circulation; who ignores altogether the universal practice of hoarding and its powerful influence in matters of currency—a writer thus ignorant of the questions at issue, both generally and with special reference to India, deserves but little notice. One or two objections, however, we may briefly examine, first remarking that the absence of Government control, to which he objects, is, in our opinion, an advantage.

He argues thus: Suppose the Commissioners to have issued three crores of paper. One crore of the silver received in

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exchange would be retained in their hands to ensure convertibility; the remaining two would be invested in securities and thus be returned into the circulation, which would thus receive, in the case supposed, an addition amounting to two crores—three crores of paper and two of silver having been introduced in the place of the original three crores of silver. The two crores of silver issued in payment for the securities might then come back to the Commissioners, and two thirds be, as before, invested in securities. This process might be repeated until there were three crores of silver and six of securities in the reserve; and nine crores of paper in circulation having replaced three crores of silver. Hence the theoretical limit of the process would be that nearly all the coin of the country would be in the Commissioner's reserve, and three times that amount of paper be in circulation.

To this elaborate arithmetical objection the writer himself supplies a sufficient answer when he concedes that 'prudent management' might prevent the consequences which he details. He does not tell us why we should despair of obtaining prudent managers of our Paper Currency, if not of Indian manufacture, at least by importation from England; or why distrust and a run on the Issue Offices should be more probable, as he asserts, than average care and financial knowledge on the part of the Currency Commissioners. However, waiving this, it is evident that the silver invested in securities, if it renders the currency redundant in comparison with the commercial requirements of the country will be exported or hoarded, leaving the total amount in circulation what it was before. We have already dwelt at such length on this natural process that it is unnecessary now to recur to it. We shall notice one other objection, which has, however, been already answered elsewhere.

The purchase of securities by Government is equivalent to the cancelling of so much of the public debt. In England stock is purchased for the reduction of the National Debt only when there is a clear surplus. In India there is no such surplus, and the country is therefore not in a position to redeem any portion of her debt. We have already stated that one object of Mr. Wilson's scheme was the creation of such a surplus and such a power of redeeming part of the Indian debt, by substituting Government paper for part of the metallic currency and applying a large proportion of that part to the relief of the finances. We have shown by argument and the highest authority that such a course was perfectly legitimate and safe. What is brought forward as an objection is, therefore, in fact a merit, and must necessarily enter into any plan for establishing a Government Paper Currency.

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The main features of the scheme which superseded Mr. Wilson's, and which is now in operation, are as follows. Notes are issued only against coin or bullion, except a certain limited amount—four crores of rupees—below which it is supposed that the paper in circulation can never fall. The notes are issued through Banks. It is intended that a subsidiary gold currency shall be introduced, equal in amount to one-fourth of the paper issue, not superseding silver as the standard of value, but circulating at fluctuating rates liable to revision at six months notice. This part of the scheme is still in abeyance. No notes are issued for less than ten rupees, the gold coin, when introduced, supplying the place of notes of lower denominations.

To this unambitious scheme we can concede the praise of being undeniably *safe:* a merit which it shares with purely metallic currencies. Based upon the principles of the Bank Act of 1844, it is of course open to most of the objections to which that measure is liable, and which we need not now recapitulate. It will confer upon the public the profit accruing from the redemption of four crores of securities, minus expense of management, and the convenience of a portable instead of a clumsy circulating medium. It will be understood from the preceding pages that it has not secured to the public the profit and other advantages which we believe might have been derived from the introduction of a Government paper issue, nor does it make provision for future increase of notes issued against securities, from which alone appreciable profit can be derived. Its benefits, such as they are, will be increased by the contemplated introduction of a uniform currency note for the whole of India. On the subject of the intended use of gold we cannot enter further than to express our opinion of its superiority to that part of Mr. Wilson's plan which would have issued notes for twenty, ten, five, and ultimately for less than five rupees. The poorer classes, amongst whom chiefly these notes of low denominations would have circulated, if at all, are the least capable of distinguishing genuine from spurious paper, and would probably have suffered severely from forgery, which is even now productive of serious inconvenience.

Up to the present time little more has been effected in the carrying out of Mr. Laing's plan for supplying India with a Government Paper Currency than the substitution of the new paper in the circulation for the notes of the Presidency Banks. How little has actually been done towards supplying this enormous territory with a cheap and convenient substitute for its silver currency will be seen from the following statement of the condition of the Issue Department on the 31st January last, with which we conclude

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our paper—Notes in circulation: Calcutta, Rs. 2,43,00,000; Bombay, Rs. 1,60,00,000; Madras, Rs. 58,00,000; Total, Rs. 4,56,00,000. Silver coin reserve—Calcutta Rs. 1,74,51,139; Bombay, Rs. 51,00,000; Madras, Rs. 53,00,000; Total, Rs. 2,78,51,139. Silver bullion reserve—Bombay 1,09,00,000. GOVERNMENT SECURITIES—Calcutta, Rs 68,48,861.

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ART. IV.—1. *On the Geological Structure of part of the Khasi Hills, with Observations, &c.* Calcutta; Military Orphan Press, 1854.

2. *Notes on the Kasia Hills and People.* By Lieutenant H. YULE. Bengal Engineers. "Journal of the Asiatic Society" No. CLII. 1844. Calcutta.

DILIGENT students of the newspapers, those who daily read every line of 'Correspondence,' 'Editorials' and 'Extracts' are no doubt aware of the existence on what is called our North Eastern Frontier of certain tribes, who, they know, are more or less savage, but of whose whereabouts, habits and history they have been able to form a very dim notion. Nor is this to be wondered at, since with respect to these tribes the Newspaper accounts present a most inextricable tangle which is by no means confined to the less civilized part of the North-Eastern Districts. For some of the mistakes which are made it is difficult to account, except on the supposition that in the editorial mind the names of the several tribes are convertible terms, and that Kassiah, Kookie, Naga, Gāro, Abor, Mishmee and twenty other appellations may be indiscriminately made use of to describe all or any one of these tribes. It is hardly possible to imagine, that correspondents, writing from the spot and with any knowledge of the localities, can be guiltyof the errors which are such a constant source of confusion.

This confusion it is true is not confined to the newspapers and their editors; it has taken possession of the official as well as the editorial mind, and very recently we heard of a case where an officer being ordered to Sylhet was officially recommended to take steamer to Gowhatty, from whence he would be able to drop down (by a tunnel through the Kassiah mountains probably) to the former place. In short, a thick veil of ignorance seems to hang between the public and all knowledge of our North-Eastern Frontier, comprising as it does Assam, Sylhet, and Cachar with their rivers, hills and forests, their varied products, peoples and languages. For ourselves these border tracts have always had a strong fascination, it may be in our own case from early associations, but we share the feeling with many of our friends; and indeed there is much in them

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of the strange and the beautiful to gratify the eye and lay hold on the imagination. Who could refuse a tribute of admiration to someof theloveliestscenery in the world? Hills clothed with forests most varied and luxuriant; rocks whose rugged sides are relieved by hanging wood, silvery cascade and foaming waterfall; rivers now pent in narrow precipitous passes or chafing between vast boulders, now widening and reflecting in clear depths fantastic rocks or islets of 'dark greenery'; and in short all that goes to form a perfect landscape?

Add to these the elemental wonders which cannot fail to exercise powerfully the imagination of all who witness them, the heavy rain-fall which converts the whole plain of Sylhet into one vast lake; the glorious storms in which for whole nights long hill calls to hill in never ceasing peals of rolling thunder, whilst lightning of every hue flashes incessantly forth in defiance of the dashing rain torrents which seem vainly striving to quench it.

Look, too, at the wonderful flora of these hills and valleys; the 'Ficus elastica' whose living roots bridge chasms a hundred feet wide; the orange groves perfuming the air with blossom or laden with golden fruit; the forests south and east of Sylhet and Cachar where the trees rise like buttressed columns, and creepers and trailers of varied and grotesque forms hang from the branches like cables and ladders of rope, or climbing the trunks of the loftiest trees send forth floating banners of blossoms from their summits. Every where in the damper nooks are found the most beautiful and varied forms of ferns, from the minutest delicately pencilled variety to the tree fern with its gigantic fronds. Here too, spreading their fleshy roots over the bare rocks or the gnarled tree bark, flourish in all tints of lilac, purple and gold the most lovely orchids; and again in spots where few other conspicuous plants are found, the stately 'Lilium giganteum,' sometimes nine feet high, stands laden with rich flowers of crimson and white.

And who can describe the variety of insect life with which the hills and forests teem? The brilliant butterflies of all brightest hues; the moths large as bats which flit heavily through the evening air; the quaint beetles of startling size sweeping by in 'droning flight;' the leaf insects, from birth to death mimic representations of the foliage on which they feed, and which fade and die with the fading leaf, or the cicada whose clear but monotonous note rings through the air like a distant sheep bell? Till withal comes over us the wish of the hero of Locksley Hall.

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—— " Ah, for some retreat
' Deep in yonder shining Orient, where my life began to beat.
' Oh, to burst all links of habit—there to wander far away,
' On from island unto island at the gateways of the day.
' Larger constellations burning, mellow moons and happy skies,
' Breadths of tropic shade and palms in cluster, knots of Paradise.
' Droops the heavy-blossom'd bower, hangs the heavy-fruited tree—
' Summer isles of Eden lying in dark-purple spheres of sea.
' There methinks would be enjoyment more than in this march of mind,
' In the steamship, in the railway, in the thoughts that shake mankind.'

If, however, we had more of the Steamship and something of the Railway we should not have to complain of the apathy which, except in those who have a material interest in them, almost ignores the existence of these districts.

We had thought of endeavouring to treat of the whole North Eastern Frontier and its various tribes, but the subject is too large and would exceed the limits of an article as well as of the patience of our readers. We must confine ourselves for the present to that portion of the Frontier which has for some time past forced itself on the notice of the Government and extorted a languid attention even from the public in general ; we mean the Kassiah and Jynteah Hills, and that portion of the plains, namely Sylhet, which, lately at least, has been more intimately connected with these hills than with the valley of Assam to which in an official sense they belong.

Surely the Sylhet of the earlier days of the British rule must have been better known than it now is; the days when Lindsay (of the Balcarras Lindsays) reported to Warren Hastings that he had built in the District sundry ships, one at least of four hundred tons for the export of rice to Madras and elsewhere—strange days when the Collector, the same Lindsay, was the great lime-dealer of the district, when his whole official salary was paid in cowries in which he was also necessarily a dealer—when for protection against the Kassiahs (then, as of late, troublesome, and much more aggressively troublesome) forts were erected in which Bengalee traders were sometimes besieged for weeks together. Better known, too, probably nearly half a century later, though more to our cost when the Burmese over-ran Cachar to the borders of Sylhet, and a British column was temporarily repulsed on the Barak * during the first Burmese war ; but still with a knowledge mixed with a strange ignorance which, during the same war, sent nine hundred camels to die in the swamps of Cachar, a mission which they most strictly and completely fulfilled.

* The Barak is the river which after flowing through Cachar forks into the Soormah and the Koosearah, the two principal rivers in the Sylhet District.

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It seems strange at first sight that an interest, which undoubtedly in days long ago attached to these districts, should have been almost lost;—and it seems still more strange when we consider that, for long years past and even up to the present time, Calcutta, and indeed all Bengal, have been indebted almost exclusively to Sylhet, or rather to the Kassiah Hills through Sylhet, for one of the necessaries of civilized life, lime-stone, as also for one of its luxuries, the so-called Sylhet oranges, which, however like the lime are a product of the Kassiah Hills and of that very locality in the hills from which a large part of the lime is brought. Moreover, there was at one time a hope of the profitable export to Calcutta of the valuable coal of these hills, a hope which hitherto however has not been realized.

How has it then happened that the interest, which once existed and which many circumstances conspired to maintain, has been suffered to die out? The answer is not difficult. Interests, like every thing else, are comparative—the greater interests have swallowed up the smaller. The trade which seemed of importance in the days of Lindsay and Warren Hastings has been mainly for years past in the hands of one Company, and is now a mere drop in the ocean of the trade and commerce of British India The districts which then formed a large portion of the possessions of the East India Company are now a mere corner within the line of red which marks Her Majesty's Indian dominions. Great wars with their reverses and victories have wiped out the memory of the little detached operations in Sylhet and Cachar with their small successes and failures; whilst the tranquillity,—broken only by petty raids of no political importance,—which for many years past has reigned undisturbed in this part of the Indo-British territories, has allowed the attention of both the Government and the public to be withdrawn from it. Even during the last Burmese War it was thought sufficient to detach one native regiment of the line for the defence of the frontier in addition to the one Local Regiment to which alone for some years its protection had been entrusted, and even this was found to have been an unnecessary precaution. Lately no doubt much of interest has revived for Sylhet and Cachar in consequence of the discovery of the indigenous Tea plant in those districts and the consequent influx of European settlers, amounting in the case of Cachar to almost a colonization: but hitherto any increased knowledge, with regard to situation, climate, capabilities and means of access, seems to have been chiefly confined to those who either have visited or have a personal concern with the districts. And the same may be said of

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Assam, notwithstanding the much longer time that Tea factories have been established in that Province.

This too is intelligible, Assam or Sylhet and Cachar once reached, there is at present nothing to get to beyond ; an adventurous traveller, a persevering naturalist or a sanguine sportsman might, with difficulty and at much risk, make his way through the hills to Burmah* or Bhootan, and possibly to China, but there is no high road, nothing at present to tempt the speculator beyond our borders; and thus it happens that those alone who are brought by duty or business to these countries feel interested in acquiring any information about them. Moreover, though the actual distance between Calcutta and our North Eastern Frontier is not great, the journey has always been a long and difficult one, by a tedious and uninteresting route ; and till within the last few months no sort of facility has been offered for reaching Sylhet, the only facility now being an indifferent steamer which makes the journey backwards and forwards, more or less regularly, about once in six weeks, and which can only be looked on as the harbinger of better times. We may hope that even if the Eastern Bengal Railway be not extended beyond Khoosteah, yet that means of constant communication will soon be established from thence to Dacca and so on to Sylhet, the Kassiah Hills and Cachar ; and we hold that there is a fairer field for European Colonization in this corner of Bengal than in any other part of India. The climate of Sylhet and Cachar themselves seem very favorable to the European constitution, whilst the close neighbourhood of, and the easy access to, the mountains render a European climate readily attainable.

The District of Sylhet (including the lowlands of Jynteah) runs along the foot of the Kassiah and Jynteah mountains,† which form its boundary on the north, from Mymensing on the west to Cachar on the east, whilst its southern jungles merge in those of Independent Tipperah, in a wild and very sparsely inhabited country of hill and valley covered with dense forest, where the laying down any boundary is matter of extreme difficulty. It thus forms part of a wide level valley between the Northern and Southern ranges, the latter seldom rising above

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* There is, of course, no difficulty in reaching the confines of the Burmese territory through Cachar and Munneepore, but the Burmese authorities are jealous of European travellers in this direction.

† It is a common error to suppose that Sylhet and the Kassiah Hills are identical, and that the district of Sylhet is an elevated plateau. The Stations of Sylhet and Cherra Poonjee are, we believe, often confounded.

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fifteen hundred or two thousand feet, whilst those to the North vary from a little over three thousand to upwards of six thousand feet. The climate of Sylhet, considerably cooler than that of the ordinary districts of Bengal, and free from the arid blasts of the North West Provinces, is for a great part of the year extremely pleasant and is seldom oppressively hot.

The physical features of the country are such as might be expected in an extended basin such as that just described. In ages long past this basin probably formed an estuary of the Bay of Bengal. In its centre and stretching away to the river Soormah, which divides the larger part of Sylhet from Mymensing, are wide plains, (almost universally inundated during the periodical rains,) on the higher inequalities of which are perched villages with the houses closely huddled together as if crowding up from the flood; whilst the lower parts are occupied by swamps and marshes which never dry up. In the drier months the plains are covered with a short nutritious herbage affording pasturage to the numerous cattle which form the chief wealth of the villagers. In the rains the cattle are condemned to close imprisonment, their forage, coarse jheel grass and reeds, being cut and brought in boats which at that season of the year form the only communication between village and village; in the intervals however between the rainy seasons such crops as are found in the ordinary districts of Bengal are abundant, whilst nature has, in addition, provided a description of rice, of which the elastic stems and roots stretch with the rising flood and enable the plants to flourish during the highest inundation.

Here and there, along the banks of rivers, are more continuous tracts of high ground on which villages are seen embedded in groups of feathery bamboo: and tracing the courses of the rivers upwards the country generally rises higher, and the villages become more frequent and more picturesque. Here and there are considerable marts, of little external pretension, where trade is carried on in rice, oilseeds, ghee, and dried fish, and where may be seen boats of all shapes and sizes, the flat-bottomed and punt-like boats of the Ganges, the more graceful oolack of Dacca and Lower Bengal, and the uncomely looking, but elastic and sea-worthy balam boat of Chittagong, whose planks are strongly sewn together with cane bands. The numerous fishing boats present a great variety of elegant forms, some resembling Wordsworth's 'little boat in shape just like the crescent moon' about eighty feet long and very narrow, others like a duck sitting on the water with a raised and curved neck, and again the less

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pretentious dhinghee, or the humble khoonda fashioned out of a single trunk, but all, unlike their heavier and clumsier neighbours, shooting swiftly and easily over the waters.

Ascending the Soormah we come to the town and station of Sylhet. Both here and at Chattuck, lower down the river, we see the jungle-clad hillocks which form, as it were, the outposts of the mountain range in their rear, in which, increasing in height and with intervals here and there between them, they eventually merge. These detached and semi-detached ranges of low hills are found on the south and north banks of the Soormah; and on these are situated the Tea gardens of the Sylhet District. The Station of Sylhet is one of the prettiest in Bengal, the hillocks we have spoken of being ever covered with varied and beautiful vegetation, backed in the distance by the blue Kassiah Hills.

There is nothing to distinguish the mass of the inhabitants of the district from the ordinary Hindoo and Mussulman Bengalee. Here and there a small colony of Munneepoories may be seen, easily distinguishable by their Tartar features and fairer skins; as well as in their villages by the houses with long straight ridge poles and gable ends unlike the hog-backed hut of the Bengalee. In Sylhet nearly every man is a land proprietor in his own right, some of the assessments being as low as eight annas a year.

Much that is picturesque and beautiful may be found in many parts of Sylhet, but in claiming consideration for the beauties of the North Eastern Districts, we intend to confine our readers' attention chiefly to those ranges of mountains and hills and tracts of luxuriant forest which form their most distinguishing features: and in all these the Kassiah and Jynteah Hill Districts take a prominent place; whilst the recently quelled disturbances add to the interest which ordinarily attaches to them.

Travellers who have seen the Hymalaya and other bold mountain chains would at first sight be struck with the tameness and monotony of outline of these hills, as like a low blue cloud they rise from the bank of the Brahmapootra to the Westward and trending towards the east, with a long wavy inclination, reach their highest point (visible from the plains) of between five and six thousand feet; but a closer examination will reveal features of unexpected grandeur—perpendicular faces of precipice and water-falls of stupendous height, noble gorges leading into valleys unsurpassable in beauty, where in the bed of the clear streams lie vast boulders washed down from the cliffs above and on either side spurs of emerald green slope down

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symmetrically to the water's edge, whilst an immense wall of rock three thousand feet in height rises abruptly in front.

Three such valleys nearly surround the peninsula-like plateau on which stands the station of Cherra Poonjee. In these are to be found some splendid specimens of those "living bridges' of which we have before spoken as formed from the roots the 'Ficus elastica' for a description of which we must refer our readers to Colonel Yule's paper. The appearance of the station itself is disappointing. The almost incredible rain-fall (which is however very local and in a great measure confined to an area of a few square miles) has denuded the rocks of soil, and the mere plateau looks bare and inhospitable; but the prospects over the distant plains and hills and into the valleys immediately beneath are most beautiful and unsurpassed by any thing in the hills. Cherra Poonjee, however, as the main station in the Kassiah Hills is, we believe, doomed, we need therefore say little about it. West of the station rising to a height of about three hundred feet is a range of hills in which are contained the coal mines which having been most worked are best known. These run in horizontal galleries into the side of the rock; but here and elsewhere the working on any large scale has been abandoned.

The limestone rocks which underlie the coal beds are every where pierced with caves and are well worth exploring, particularly on the south side of the range, where the limestone forms a wall eighty or a hundred feet high. Strolling about here with a friend many years ago, we come on what we had long been looking for—having heard of its existence—a sort of well cave. It is of a circular form, not less than seventy feet in diameter, and the walls rise perpendicularly to an almost uniform height of eighty feet. It is approachable by two entrances, one the bed of a watercourse, and one a short winding passage which would almost cheat one into the belief that it was artificial. Over the wall of rock we have spoken of, and which forms the background, falls a small cascade, which loses itself in a subterranean passage below the floor of the well. In the same range of cliffs is a very remarkable cave quite a mile long in its windings, and penetrating in a straight line nearly half a mile into the rock; but it is somewhat difficult of access, and to reach the end, it is necessary to wade nearly up to the waist in water. It is everywhere lofty, and, once inside the cave, no creeping or climbing is required. At the foot of the mountains not far from the village Pandooah is a cave of still greater size and of greater intricacy. Here, according to popular tradition, a Chinese army was lost whilst on its march underground to invade Bengal.

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As we are on the subject of the limestone, we cannot refrain from quoting a description of some curious formations found in the hill country east of Cherra, nearly on the borders of Assam, by Major Cave, who was for many years a resident in these hills. He says—'At one place called Mungolai the limestone is very 'peculiarly placed. I do not mean geologically but pictorially. 'The valley is about one mile broad, flat-bottomed and surrounded 'by low hills. All round the valley at the bottom of the hills, 'are walls of limestone presenting a more perfect resemblance 'to buildings than any thing of the kind I have before seen. On 'closer inspection these walls are curious, being composed of huge 'rectangular masses regularly divided into streets which cross and 'recross each other at right angles or nearly so, and extended 'some distance. These streets are of a good width, six or eight 'feet ; sometimes a fine tree is growing up from the bottom, and 'generally there are branches and creepers arching over the top, 'all very picturesque.'*

The Mamluh valley about three miles west of the Cherra plateau is well worth a visit. The village of the Mamluh, which is most picturesquely situated on the upper slopes of the valley, was one of those places where resistance was made, when the treacherous murder of Lieutenants Bailton and Beddingfield obliged Government to assert their authority in the Kassiah Hills. The only legitimate approach to it from above is by a paved causeway cut, and for a short distance tunnelled, through the rock ; and along the whole rear of the village extends a pretty wood, outside which to the edge of the valley on either side runs a rough stone wall intended for purposes of defence. This village, unlike most of those on the heights which are generally rather bare, stands embosomed in a wood which extends into the village and amongst the houses. The huts are built substantially of horizontal layers of planks painfully fashioned by the adze. These, resting on one another edgewise, are kept in their places by stout posts, and the whole is roofed over with a sharply inclined thatch of bamboo leaves. A pigstye is an indispensable adjunct to every hut, and the pigs, which are of a handsome China breed, are quite as much at home either in the hut or stye as their owners.

A distant view of the sloping village forms a very inviting picture, but here as in other places an efficient Municipal Commission is much needed. There is considerable difficulty in picking one's way through the village paths, and the scents,

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* Oldham's Geology of the Kassiah Hills.

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though not quite so bad as in some more civilized neighbourhoods, are anything but agreeable and suggest unpleasant recollections of Calcutta.

Leaving the village and skirting the edge of the valley to the North West we come on one of the steepest and deepest precipices which these hills present, and rushing over it is a magnificent waterfall. This goes by the name of 'Luckae's Leap;' the legend being that Luckae, a Kassiah woman, married a wild Garrow, who during his wife's absence killed and cooked, and afterwards gave her to eat, her two children by a former marriage, on learning the nature of her meal she fled and leaped over the precipice, and by her name it has ever since been called.

It is impossible to avoid being struck by the groups of monumental stones which are to be seen in the neighbourhood of villages and in other conspicuous spots on these hills. We cannot do better than quote Colonel Yule on this subject. 'The various remarkable monumental stones which are scattered on every 'way-side cannot fail to attract the attention of the stranger 'from the peculiar aspect thrown by them on almost every scene 'in the upper parts of the country. They are of several kinds, 'but almost all of them recall strongly those mysterious solitary or clustered monuments of unknown origin, so long the 'puzzle and delight of antiquaries, which abound in England, 'and are seen here and there in all parts of Europe and Western 'Asia. The most common kind in the Kassiah country is composed of erect oblong pillars sometimes unhewn, in other instances 'carefully squared, and planted a few feet apart.

'The number composing one monument is never under three, 'and occasionally they are as many as thirteen. The highest 'pillar is in the middle, sometimes covered with a circular disk, 'and to right and left they gradually diminish. In front of 'these is what English antiquaries call a cromlech, a large flat-'stone resting on short rough pillars. These form the ordinary 'road-side resting places of the weary traveller. Some of these 'stones are of considerable size and must have cost immense 'labour in erection. The tallest of a thick cluster of pillars at 'Nurtung in the Jynteah country rising through the branches of 'a huge old tree measures twenty-seven feet in height above the 'ground, and in another place near the village of Lailankot a flat 'table stone or cromlech, elevated five feet from the earth, mea-'sures thirty-two feet by fifteen and two feet in thickness. In 'some cases the monument is a square sarcophagus composed of 'four large slabs resting on their edges and well fitted together, 'and roofed in by a fifth placed horizontally. In other cases the

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'sarcophagus is in the form of a large slab, accurately circular, 'resting on the heads of many little rough pillars closely planted 'together, through the chinks between which may be seen certain 'earthen pots containing the ashes of the family. The upright 'pillars are merely cenotaphs, and some few among them have 'probably been erected in commemoration of certain important 'events.'

We need only add to this that we have seen a group consisting of not less than twenty-two oblong pillars all belonging to the same monument. The position of any considerable collection of these tombs would seem frequently to be determined by the facilities which may be afforded for procuring stone, and the greater amount of symmetery which some blocks show is due to the character of the stone. Where only granite or other hard rock is to be found, the forms of the monuments are correspondingly rude. Sometimes they seem almost to disappear in places where stone is procurable only with great difficulty, but they are found very generally in all parts of the Kassiah hills, and we have even seen tombs of the kind in the plain of Assam some miles from the foot of the hills.

Less than thirty miles from Cherra Poonjee, east of the road which leads from thence into Assam, stands the peak of Shillong, the highest known point in the Kassiah and Jynteah Hills. Its height, which has been accurately determined, is 6449 feet, and hence may be seen what is described by Dr. Hooker, as probably the most extensive view in the world, embracing an area of (he calculates) not less than 30,000 square miles, or as large as the whole of Ireland, from the Munneepoor hills in the east to the Himalaya on the north and north-west, and far over the plains of Sylhet to the Tipperah Hills on the south.

Below this peak to the north lies the plateau which has been recently chosen as part of the site for the new head-quarter station in the hills. Its general elevation is about 5900 feet. Again some 700 feet below this we come by a very easy descent to the plateau of Yeodo which forms the other part of the site. On both of these plateaux, and all down the hill side which leads to the lower, are beautiful spots for building, and in time this should be one of the finest hill stations in India. The supply of water is abundant, and it is stated, and we believe it to be the case, that by merely damming up one of the streams, at a ridiculously small expence, a lake may be made as large as that of Nynee Tal. The rain-fall, which is the serious drawback in parts of these hills, is here comparatively light and probably less by three-fourths than that at Cherra Poonjee.

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We have said in an earlier part of this article that there is a fairer field for colonization in this corner of Bengal than in any other part of India, and it was to the advantages which these hills hold out that we chiefly referred. It is, we suppose, generally known that the Kassiah and Jynteah Hills consist, all along their southern front, of a series of flat-topped ridges and nearly level plateaux, intersected by deep, narrow, abrupt glens such as those we have described as surrounding the Cherra plateau. Advancing further to the northward we come on long tracts of rolling moorland, still diversified by river valleys. Such, for instance, is the country about Shillong, and Yeodo is an instance of the flat-bottomed valley we have attempted to describe. On these moorlands one may often ride for miles without ascending or descending more than from one to two hundred feet. From Moflong (where about eighteen miles from Cherra we first come on these wider plateaux) the road for nine miles to Shillong lies over such a moorland and along it there is no where a dip of more than sixty or seventy feet.

It will be easily understood that such a country as this affords space for occupation such as is not to be found in our hills to the North West. We believe that it would give admirable pasturage for sheep, we already see cattle in plenty in the finest and sleekest condition. Potatoes and other esculent roots are even now grown abundantly. The soil would seem to promise well for cereals of all descriptions, and we look forward to the time when smiling English homesteads* shall rise along the gentle slopes, and when 'the valleys shall stand so thick with corn that they shall laugh and sing.' Here, too, we have almost everywhere stone easily workable and admirably fitted for building purposes, slate is to be had for the searching, lime-stone is at hand in any quantities, and the coal which here at least may profitably be brought to market is abundant in various parts of the hills. Already have two roads been commenced from Shillong, one leading to Sylhet and one to Gowhatty in Assam, and everything promises fair for the new station.

About thirty miles from Shillong to the west stands a very remarkable rock called by the natives 'Kalung.' This forms a most imposing feature in the landscape from various points in the hills. An immense isolated mass of granite it stands amongst the gently undulating hillocks which surround it, overtopping them all by 500 feet, whilst its western face rises, naked and

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* The little detached Kassiah villages on the slopes remind one very much of small English farms.

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almost perpendicular, above 700 feet from its base to its rounded top. Its eastern base rests in rich wood which climbs half way up this less abrupt side, and here it is accessible by a steep and very slippery ascent. From the top is a fine view over a well timbered, park-like country to the westward, whilst on all sides it commands a prospect similar to, though less extensive than that from the peak of Shillong. Some ten miles north-east of the Kalung rock is Nungklow, from whence the Kassiah hills begin to slope towards the valley of Assam. We cannot imagine any scene more lovely than that which presents itself from this place. In the foreground sloping from the verge is a hanging forest of very varied vegetation, where wild plantains and other tropical plants are seen side by side with the pine of these hills (Pinus Sinensis we believe) which, first seen small and stunted about fourteen miles north of Cherra, attains its greatest height and girth in this forest. Lower down are hills still beautifully wooded or green with gigantic grass. These gradually sink into the valley of Assam which, intersected by the silver thread of the Brahmapootra, stretches away for seventy miles to the dark Bhootan hills, behind which tower the eternal Himalaya snows. To the east as far as eye can see rise range upon range of blue hills till they fade in the distant horizon. Here at day break a strange and beautiful sight may now and then be seen. A dense mist fills the valley to the very brink, which then looks like the wooded shore of a pale waveless sea stretching into space. Suddenly out of the still depths rise, as if by magic, islands of silver tinged with rose colour and gold, as the first beams of the rising sun kiss the snowy peaks of the, till then, invisible Himalaya.

But we have devoted too much space to scenery, we must pass on to the Kassiahs themselves, their character and customs. They are generally a cheerful, lively, good-humoured race, amongst themselves full of jokes and fun, truthful, open-hearted and honest, till intercourse with the people of the plains teaches them to deceive. Seldom tall but of strong well knit figures, and with such developement of leg from constant exercise up and down hill as we have never seen elsewhere. Men and women with their broad Tartar features approach to general comeliness when young, and we have known specimens of both quite good looking. But they disfigure themselves early by the universal and excessive use of pawn which blackens the teeth and mouth and removes all trace of good looks. They have seldom any hair on their faces, a thin wiry moustache being quite the exception. The men shave the forepart of the head, gathering the long back hair into a knot which is often concealed by a large and very

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dingy turban. The women also confine the hair in a knot, but ordinarily wear no head dress. Both sexes are fond of sticking flowers, the bright crimson rhododendron or some gay colored orchid, between the ear and the head, and the women often adorn the knot of hair in the same way. The national dress of the men is a sort of unbleached sleeveless shirt fringed at the bottom and ornamented in front and at the back somewhat after the fashion of an English waggoner's smock frock. In addition to this, those who can afford it, wear a long, striped, picturesque looking chudder, but there is not the smallest attention paid to cleanliness of person or dress. The women are wrapped in a long straight mantle of striped cloth, with ends meeting and tied in a knot over the breast. Indispensable both to men and women is a small net bag of pine-apple fibre, which hangs over one shoulder and contains a very miscellaneous collection, consisting chiefly of a rude clasp knife and the materials for pawn, namely, betelnut, pawn leaves, and a small brass or silver box, with a chain attached, which holds the prepared lime which is eaten with the pawn. In the rains they generally wear a hood, formed of a light bamboo frame, lined with broad leaves which going over the head reaches far down the back and is a very effectual protection. Their burthens, like most hill people, they carry on the back, but these are kept in their place and to a certain degree supported by a wide plaited band across the forehead. When working by the job they will often carry as much as two maunds of coal or potatoes, and we have known a stalwart Jynteah Kassiah to carry a six dozen chest of beer: but the ordinary load is something under a maund. A common mode of travelling which we have never tried ourselves is to be carried on the back in a basket or chair prepared for the purpose. We remember a very stout friend of ours arriving at the foot of the hills, there was no pony to carry him, and to walk seemed for him out of the question. A chair was prepared for him and he sat patiently waiting to be lifted. Several men came and looked, but the size of the burthen alarmed them. At length when he had begun to despair, an old woman, taking pity on the inferior sex, stepped out and amidst shouts of laughter prepared to take him up. We believe the matter ended in a sufficient number of men being shamed into acting as carriers.

Kassiahs as a rule have a great objection to early rising, and on a journey it is difficult to rouse them to take up their loads. We had from a friend not long since an amusing illustration of this in a letter he had received from an old servant; after mentioning that he had been appointed a dâk runner he adds—

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'and oh my misery! they say to me if I do not arrive at six in the morning I am of no manner of use.'

They have no prejudices about food and eat every thing that is good for food indiscriminately; but, as is always the case, those who have more intercourse with natives of the plains become more particular. The Jynteah Kassiahs who, as we shall see, have become more Hindooized, refuse to eat beef, which is freely eaten in other parts of the hills. Their staple food is rice and dried fish.

Next to the oranges, which are a local crop confined to the southern slopes of the hills, their most important crop is potatoes, which are largely cultivated and exported, affording employment to a large portion of the population. The export through Cherra cannot, we believe, be less than a hundred thousand maunds a year, and the cultivation is yearly increasing.

In some parts of the hills iron smelting and forging form the almost sole occupation; and it is a common thing to come on whole villages inhabited exclusively either by iron smelters or blacksmiths: often at a distance the measured beat on the stone anvil sounds like a peal of village bells.

Cattle and goats are frequently seen, but they are kept almost exclusively either for food or sacrifice or for their manure. Milk is taken by the Kassiahs in no shape, nor are the cattle used for husbandry.

Many of the Kassiah customs are remarkable, and foremost amongst these, distinguishing them at least from any of their neighbours, is the strange, though not altogether unique law which, entirely excluding the direct line, transfers the inheritance to the sister's children. This rule obtains universally; so that a Raja's son may be a common peasant, whilst his nephew succeeds to the dignity and property whatever it may be. This usage is no doubt a consequence of the laxity of the marriage tie, which indeed can hardly be called marriage at all. The house and goods are the property of the wife to whom the husband pays perhaps only occasional visits. Mutual consent and the exchange of five cowries dissolve the tie. The children and the property remain with the wife.

The funeral festivities, for by no other name can they be called, are very peculiar. These do not take place necessarily or even usually at the time of the decease of the person in whose honor they are celebrated. The body is preserved to a convenient season either by desiccation or some other process, and on the last day of the ceremony it is burned and the ashes are collected and placed

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in a sepulchre.* The festivities last for three or more days, and during that time a sort of fair is held enlivened by various games, amongst others climbing a greased pole. On each day there is a sacrifice of goats ; and it is important that their heads should be struck off by one blow of an unwieldy two-handled sword. For people of consequence a bullock is added to the goats, and the flesh of all is distributed amongst the people with plenty of pork and strong drink. The most striking feature of the ceremony is the dance which is performed on these occasions for which all their finery is preserved. The men decked out in jackets of satin or velvet or broadcloth of the brightest hue, red, green, purple or yellow, with silken turban, plumed with peacock or other feathers, with gold and silver earrings, bangles and chains, with silken dhooties, and often with a bright chudder of silk or broadcloth, a gaily decorated quiver with arrows hanging at their back, and armed with the two-handed sword and shield which they continually clash together, dance in a circle a wild but monotonous measure, accompanied by discordant music, firing of musketry and long-continued howling.

The village maidens, meanwhile, swathed mummy-fashion in the most gorgeous of silks and muslins of every procurable colour and loaded with silver chains and ornaments, stand in a circle, and, with eyes demurely cast on the ground, execute an unvarying *pas* which consists in bringing the heels and toes alternately and very slowly together. The only picturesque thing about them is their head dress which is formed of a circlet of silver rising into a spear-head ornament behind. These gold and silver ornaments as used by men and women on these occasions are their most cherished possession and are handed down as heir-looms. A Kassiah would almost rather starve than part with a set when once possessed. They are sometimes worth as much as seven or eight hundred rupees. But here as in more civilized life they are often hired for the occasion.

The Kassiah national weapon is the bow and arrow, but they are by no means skilful archers, and their war arrow is so heavily barbed with iron as to render it a most uncertain missile.

Of religion they cannot be said to have any definite idea. They have a sort of belief in a Supreme Being, but their dread of a spirit of evil is much more prominent than their confidence in a spirit of good. They have great faith in omens, their principal

* It is not absolutely necessary that the whole body should be kept for the ceremony. When there is any difficulty about this, as in the case of a man dying at a distance from his home, a bone or a piece of a bone is sufficient, to fulfil the positive requirement.

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means of divination being drawn from the breaking of eggs dashed with force on a board. Whole days and hundreds of eggs are sometimes expended before the required sign is obtained. Like most savage denizens of the hills they have certain groves and peaks to which, as the residence of deities and demons, they pay more than ordinary respect, and every village, as a rule, has its sacred grove from which is taken the wood used for sacrificial and funeral ceremonies, and which it is profanation to use for any other purpose. Here, however, as elsewhere, *auri sacra fames* exercises its own religious influence, and we have recently heard of village communities being not unwilling to part with their sacred groves for a consideration.

Law suits were formerly decided in a manner which, were it practised amongst ourselves, would put a stop to a good deal of litigation. Plaintiff and defendant either in person or through their attornies, appeared on the margin of a deep pool into which they dived, whichever of the representatives of the parties, succeeded in remaining longer than the other under water was adjudged to be the successful claimant. Here in truth longwindedness had a merit which it cannot always claim in our own courts. This mode of decision, however, has been long put a stop to in consequence of a case which occurred about five or six and twenty years ago, when both parties to a suit remained under water too long and neither came up alive. As a substitute gold and silver are thrown into a vessel together; into this a man appointed for the purpose, dips his head and according as he brings up gold or silver in his mouth the suit is decided.

The Kassiah hills generally are divided into a number of petty chieftain-ships with more or less independent powers. All of them are to a certain extent in defined relation with, and, either expressed or understood, dependence on, the British Government. All of them are possessed of a certain absolute power in relation to their own subjects. Whilst, on the other hand, in their relations as separate powers with one another, they are entirely subordinate to the British Government. The more independent Chiefs are under an engagement not to wage war with any other chief, but to submit their disputes to the paramount power, which on its side is bound to adjust their disputes and to protect them if attacked; but they are practically possessed of absolute power over the lives and property of their own people, and in these relations the British Government professes to exercise no more than a moral influence. The less independent chiefs, though the power of life and death is left in their hands, are (under express agreement) removable for misconduct in

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their dealings either with Government or with their own people, and this power of removal has, we believe, been exercised, at least in one case within the last few years on complaint of misgovernment and oppression. In the case of such removal a successor, a member of the ruling family, is elected by the suffrages of the people, the election being confirmed by Government. Separate villages have each their head man and council of elders, in most cases hereditary offices under the ultimate control of the Raja. There are not less than from twenty to twenty-five of these Rajaships in the Kassiah hills exclusive of the Jynteah portion of these hills, which, as well under its former rulers as since it became a part of the British possessions, has been administered on a different system.

The ancient territory of Jynteah embraced a considerable tract of plain country north of the river Soormah extending from a few miles east of Sylhet to Cachar, and the whole of the hill country stretching north and, for some distance, north-east to the valley of Assam. About twenty-six years ago the then Raja, who was a semi-barbarian, having persisted in the practice of human sacrifice from which he had been warned to desist, was deprived of his authority and removed from his capital Jynteahpoor, a small pension being assigned by Government for his support. He might possibly have been allowed to retain possession of his hill territories, but in these his personal authority was fixed on a not very firm basis, and the revenue to be derived from them was not such as to enable him to support any amount of dignity. These then were also taken possession of by Government, the plains of Jynteah being added to and absorbed in the district of Sylhet, the hill portion being at the same time placed under the authority of the then Political Agent in the Kassiah Hills. Little or no trouble, so far as we can gather, was experienced in assuming control of these hills; nor was any general dissatisfaction at the assumption either expressed or felt. Care was taken to administer the country according to old established custom, and for many years no dislike to our rule was in any way evinced.

We will now give a brief sketch of what may be called the Jynteah Hill constitution.

The country was divided into twelve circles of villages, each circle being administered by separate officials. At the head of each was an officer called a Dulloye, who was elected from some particular tribe or family by universal suffrage. Once elected his office lasted for life or during the pleasure of the Raja. He had the power of deciding certain cases both civil and criminal.

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without appeal, but others of importance were referred to the Raja and his council. The Dulloye was assisted by an officer called Pathor, who was generally elected, but was in other cases nominated by the Dulloyes. His function was to act as a deputy of the Dulloye. Besides these there were certain ministerial officers and a council of elders, in most cases appointed by the Dulloye but sometimes hereditary. The powers of this council varied in the several circles. In some cases they were mere advisers, in others they exercised at least the power of putting a veto on measures proposed by the Dulloye. All these were nominally at least, subordinate to the Raja, whose authority was acknowledged by an annual tribute of goats from each Dulloyeship, and he held moreover certain lands for which labourers was supplied from the villages. But the Rajah's suzerainty, though thus far acknowledged, was less real than nominal, and the several tribes were at constant feud with one another, settling their own disputes without much reference to their common head.

This was the state of things when the British Government took possession of the Jynteah Hills, and no material change was made in their administration. Beyond checking the petty warfare between the several tribes and villages, as little interference as possible was exercised. One or two small military posts were established, and these were for many years sufficient for the purpose for which they were intended. The usual annual tribute, which had been made in acknowledgment of the authority of the Rajah, was punctually brought to the representatives of the Government at Cherr Poonjee, and we have heard, but we know not how far the report was true, that a promise was given to the inhabitants that, provided they remained quiet, no taxation should be imposed on them.

Gradually a change began to be made in this policy which, as far as we know, had worked very well. First, a thannah was established at Jowie, one of the largest and most independent villages in the Jynteah country. This was, very distasteful to the inhabitants and probably sowed the first seeds of discontent. Then in 1859-60 came the imposition of a house tax. This caused an outbreak, which was however quelled without much difficulty, but the people then declared that they would submit to no further taxation. Consequent on this outbreak came the enforcement of the Arms Act, and, to add to the inevitable bitterness which was attendant on the confiscation, their bows and arrows and shields were collected and burned in great numbers before their eyes. This was looked upon as an inten-

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tional and additional offence, though certainly no insult was intended. It will easily be understood that the imposition of the income tax following closely on the still unpalatable house tax was not calculated to have a very soothing effect ; but other causes were at the same time working and adding to the general dissatisfaction ; amongst these we may instance a change in the appointment of the Dulloyes and other officers which limited their tenure of office to three years ; but there were still stronger influences than this.

We have spoken of the reason which led to the removal of the Raja of Jynteah, namely, his persistence in human sacrifices. The worship of Kalee which was thus pursued with such extreme fanaticism in the plain country had to a certain degree spread into the Hills, and a spurious Hindooism had been grafted on to the original demon worship of the Kassiahs, resulting in a medley of superstitions, unknown in the other parts of the Kassiah Hills. To a certain degree caste observances were introduced, beef and other articles of food forbidden by the Hindoo religion became proscribed, and groves, rocks and streams, which a semi-religious, semi-poetical sentiment had peopled with unknown spiritual beings, were converted into the abodes or the actual personifications of the gloomy Mahadeo.

And now a time had come when, as they imagined, not only their political immunities but their religious rites were to be interfered with. It is probably well known that for many years past a Christian Mission has been working quietly but steadily in these hills, and we believe that more has been done here, more practical results have been obtained with limited means than in almost any part of India. But even this, unmixed good as it really is, has seemed to have its temporal drawbacks. Many of the inhabitants of Jowie and other influential Jynteah villages became converts and, refusing to be bound by the ancient superstition, fished in forbidden waters, cut down trees in so-called sacred groves and cultivated lands which had hitherto been devoted to deities and demons. All this might have been overlooked, there was no personal hostility to the Christians, no opposition to Christianity so long as it remained a passive agent ; and probably they thought that the deities and demons were capable of looking after their own affairs ; but when the Kassiah Darogah of Jowie interfered with one of their most solemn religious rites, when, as we understand, they were told by the converts that the solemnization of these rites would no longer be allowed, then the obstinate Jynteah spirit showed itself and the resistance, which had before been

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only contemplated, was now resolved on.

No one isolated act has ever, we believe, been the cause of any political convulsion large or small, and we are far from maintaining that this last act of interference was the absolute cause of the outbreak; but it was the spark that fired the train, the last item in the scale which inclined the balance in the direction of rebellion when a modicum of judicious concession might have turned it the other way. It must be confessed that our old policy of non-interference had this much of evil in it that it left the people to a great extent unacquainted with our power, and they no doubt entertained the conviction that they should be able by resistance at least to induce us to leave them alone altogether. There seems little reason to doubt that they were under the impression that the local corps which had been so long stationed in the hills was the only available force of the British Government: and simultaneously with the introduction of the income tax came a large reduction in this regiment, without any corresponding increase from any other source. The conclusion drawn was a natural one. They were little inclined to submit to what they held to be unjustifiable oppression, more especially at a time when as they supposed the Government had less power than ever of enforcing it.

These were in our opinion the chief motives of the outbreak. We could perhaps have entered into them at greater length and with more particularity, but time and space forbid it. We believe that Government Officers are now employed in an enquiry, the results of which will probably eventually become known to the public; and it may be that other causes besides those we have spoken of will be found to have been at work.

Great impatience has from time to time been expressed at what has been considered the inaction of Government, and at the slow length to which the campaigns in these hills have been drawn out. But those who have never had experience of warfare on our Eastern and North-Eastern Frontiers can have no idea of the sort of difficulties that have to be contended with. The brilliant operations of our Chamberlains and Lumsdens are over and over again repeated, and the martial, well armed Wazeerees and other warlike tribes of the North-West are brought into comparison with the half-clad savages with whom we have to deal in our Eastern Hills: but here it is the country, the climate, the want of means and appliances that have thrown difficulties in our way. The people of Jynteah opposed to our forces in the open country would have been a contemptible enemy, and no one knew this better than themselves; but in

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their own fastnesses they were often able to evade troops unused to hill warfare, and by such evasion to protract operations. No one who has not had experience of it can understand the embarrassments which arise from the want of any other than coolie carriage; no one who has not seen a rainy season in the Kassiah and Jynteah Hills can form an idea of the difficulties which are experienced in such a country without roads and without bridges. All these difficulties have been overcome, the people have learned that the military resources of Government are not limited to one regiment; they have seen that guns can be brought into, and made serviceable in, what they believed to be, their inaccessible hills; they have seen in the introduction of the Kassiah Police that we know how to use their countrymen for something else than coolies, and that we can at the same time provide other means of carriage to take the place of coolies; they have fully proved moreover, what indeed they knew tolerably well before, that our troops are more than a match for them if they can only get at them.

Another of our small wars is over, and we hope that its historian may yet be found, for no doubt much that is interesting has to be told about it. We cannot be the chroniclers, for even had we the materials, it would far exceed the limits of an article such as this is intended to be. The Jynteah people have been taught a very severe lesson, one which they will not easily forget: but

> ' ——— We trust that somehow good
> ' Will be the final goal of ill'

Now is the time for civilization to step in, for Christianizing influences to commence their work. We hold that there is no more propitious field for humanizing efforts than the fallow ground presented by our hill tribes. Every hill top and valley and grove is an altar to an 'unknown God' whom it is our mission to declare unto them. The people are willing to learn, are even craving for instruction. Government has been compelled to teach them this lesson of severity—let it now do its part in teaching them a lesson of love. Instruments will not be wanting if Government will but do its part. The Kassiahs have many admirable qualities and much intelligence which need only education and developement; and we confidently look forward to a time when these hills partially colonized by Englishmen, and with their native inhabitants enlightened and humanized will be a source of strength instead, as of late, of weakness to the British Government.

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ART. V. 1.—*Copy of Correspondence relating to the introduction of the Chinchona Plant into India and to proceedings connected with its cultivation from March,* 1852 *to* 1863. Ordered by the House of Commons to be printed 20th March, 1863.

2. *Copy of all Correspondence not hitherto laid upon the Table relating to the Pier and Harbour of Sedasheger and roads leading thereto.* Ordered by the House of Commons to be printed 3rd March, 1863.

WE have been somewhat puzzled how to conform to the usual practice of placing at the head of this article the name of a book whose contents we are supposed to review. We have succeeded, we believe, tolerably well, as we may have occasion to quote a few facts from the publications we have designated; but we may as well candidly state at once that our object in the ensuing paper is to describe, chiefly from personal recollection, a tract of Southern India to which European enterprize is giving daily increasing interest and importance.

The tract to which we have given the name of Southern Ghâts is the mountain chain extending from the frontier of the Portuguese territory of Goa to Cape Comorin. It comprises the Province of Canara Balaghât (or Canara above the Ghâts). It forms the eastern boundary of South Canara, of the District of Malabar, and of the Kingdoms of Cochin and Travancore. It includes the small principality of Coorg, the District of Waynáad, now of Coffee-bearing celebrity, and the well known Sanatarium of the Neelgherry mountains; and falls abruptly into the sandy plain of the sea shore at the Southern extremity of India. Throughout the length of this tract, which measures in a straight line about 500 English miles, the characteristic features of the mountain chain vary but slightly. Exposed to the long continued rains and violent storms of the South-West Monsoon the peaks on the western side are abrupt and precipitous, and fall like granite ramparts into the jungle below, while on the eastern side they are clothed with fresh greensward and slope gradually into the forest which creeps up their sides. Wherever the detritus of the rocks has formed a sufficient resting place to resist the action of the torrents, the force of tropical vegetation has been able to overcome the violence of the winds, and wherever there

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is a moderate depth of soil there is a dense jungle except on the very highest peaks and plateaux. Over these the winds both of the South-West and of the North-East Monsoon sweep with intense violence, and here the forest vegetation seeks the shelter and follows the waving outline of the ravines, while a rough turf-sward clothes the undulation. Elsewhere throughout the mountain range all is either thick jungle or precipitous rock.

But although thus unvarying in general characteristics, there are many variations arising from the distance of the mountain chain from the sea and from the altitude of the mountains themselves which seriously affect the salubrity of the climate and the character of the vegetation. At the northern extremity the mountains encroach upon the sea and a spur thrown from them forms the bay and harbour of Sedashaghur, now rising into importance as a cotton emporium. Farther south, as at Candapore, and many other places, they recede sufficiently to allow their rivers to form rich alluvial deltas between the chain and the coast. Opposite to Mangalore they form a semi-circular amphitheatre, in the arena of which the extensive ruins of an ancient city lie almost unexplored, owing to the deadly climate which now prevails. And thus with a waving line from north to south they bound the narrow districts of Canara and Malabar and the kingdoms of Cochin and Travancore, separating them by so distinct a margin from the rest of the Madras Presidency, and forming a country so entirely different in people, language and climate that the western coast Officers almost form a distinct branch of the Madras Civil Service.

It is difficult to say what is the average height of this chain. The Ghâts or mountain roads which now intersect it do so at elevations varying from two to four thousand feet, while the peaks which overhang them rise to six thousand and in one instance to eight thousand feet. The greatest elevation is attained by Doddabett the highest point of the Neelgherries, and not far from it is the greatest depression, where the Palghât Gap affords a wide passage through the chain with an ascent of a little more than a thousand feet. The mountains lose nothing of their altitude as they approach their termination. The Augustia Peak near the southern extremity is 6,000 feet high, and the range throughout Travancore is as lofty as in Canara, but it is otherwise with regard to the breadth of the plateau; this narrows gradually towards the south. The table land of Mysore has an elevation of from two to three thousand feet, and into this the Ghâts on their Eastern slopes gradually subside. But south of the Neelgherries and especially south of the Palghât Gap they form a steep rampart between the ancient kingdoms of

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Madura and Travancore, and fall with almost equal abruptness on their eastern and western sides; till between Tinnivelly and the Nanjenáad of Travancore they become a narrow serrated ridge four thousand feet in height, from which the sun is seen to rise from the Bay of Bengal and set in the Indian Ocean.

At the extreme point some large masses are detached from the main chain and stand alone surrounded by plains of finely sifted sand, heaped up by the force of the south-westerly gales. The interruption to the rampart which here takes place is supplied by an artificial stone wall or curtain, constructed across the plains intervening between the mountain masses, and carried finally into the surf at Cape Comorin. This wall forms the southern lines of Trávancore, so often mentioned in the military histories of the last century, through which the jealously guarded Aramboo-ly Gate formed the only entrance into that secluded kingdom.

Within the last thirty years this tract of country has undergone considerable changes, and has exhibited in a marked manner the progressive effects of British sway. Within this period the long line of mountains has become dotted over with the houses of British settlers, its jungles have in many parts given place to the estate of the Coffee-planter, more than one Sanatarium has risen into importance, and numerous passes constructed on scientific principles have become the scenes of a busy and increasing commerce.

At the commencement of the period to which we have alluded, Mysore was in a disorganized state, and had only just passed, in consequence of this disorganization, under British rule; Coorg was still a mountain stronghold governed by a cruel and blood-thirsty madman; along the two sides of the mountain chain, in British possessions as well as in those of the Native powers, monopolies jealously guarded repressed intercourse, and peopled the defiles with smugglers and robbers, and not a single road practicable to wheeled carriages pierced the mountain barrier; but within this period a vast change has taken place. At its commencement Mysore was rescued from the hands of the Rajah, who after squandering the treasure which had accumulated under the virtuous administrations of the Minister Poorneah, drove his people into rebellion by his exactions, and then hanged them thick as acorns on the trees of Nugger. From his rule the country passed under the administration of the able statesman Sir Mark Cubbon, whose loss India has lately mourned. The principality of Coorg was soon afterwards absorbed into the British Empire and committed to the same management. The abolition of several of the most obstructive monopolies gave a stimulus to agriculture and commerce, and the advantage of well-constructed roads was at last conceded by our rulers.

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It has been our lot to be placed in a position to watch the progress of improvement in this tract of country and to become familiar with nearly all its Passes in their unimproved and improved condition. The value of our mountain tracts not only as a source of wealth to the settler but as a source of strength to the Empire is daily more fully recognized. The Coffee-trade of Southern India is already of great extent. On the Cotton trade the state of the Passes has at the present time an important bearing, and two other articles of commerce, Tea and Quinine, must shortly rise into importance. Sir Charles Trevelyan well remarked, when Governor of Madras, in one of his interesting Minutes that—"It was reserved for the Anglo-Saxon period to 'disclose the use that may be made of these mountain regions; 'they now form an important element in our system." We have thought therefore that a few records of the early stage of this mountain colonization may not be uninteresting to our reads.

To state how and where the principal lines of communication in a country were formed will generally be to follow the march of improvement in that country, and it is so in the present instance. When we first visited the Southern Ghâts just thirty years ago the principal Pass through the chain was the Bisly Ghât, forming the communication between Bangalore and the capital of Canara, Mangalore; and from the magnificent scenery of this Pass our first impressions of mountain grandeur were received. The change from the flat monotony of the Carnatic and the treeless undulations of Mysore to the gigantic forests and rocky precipices of the Ghâts produces sensations not easily effaced, especially when the traveller is new to India, and looks around him with all the interest which attaches to a country likely to be the home of many years and the scene of his first public labours. The road, if so it could be called, had been slightly repaired by the Pioneers, but only by repairing the native track which generally followed the bed of a torrent; and the traces of civilization were few indeed. And yet the Province of Canara had then been in British possession for 30 years, and the neighbouring Province of Malabar for nearly forty years. At this time not a wheeled carriage could enter the Province of Canara! Whether the natural facilities of the Palghât Gap allowed of their entrance into Malabar, we are not sure; but we know that the communication was so imperfect and the amount of traffic so small, that then, and for many years afterwards, travellers were always attended by peons armed with firelock to protect them from the numerous Elephants which infested th^{s} Pass. It is strange, but it is a fact, that during this first thirty^{e} years of British pos-

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session so small was the appreciation at head quarters of the value of public works, that trade had to force its own way through mountain defiles to the coast, and even there not a single jetty gave its aid, not a single crane displayed the advantages of mechanical science, not a single lighthouse guided the ship to its port.

It is the progress of internal communication in the next thirty years which we have proposed to make the subject of our present article; and to show how great has been the change effected within that period, we may here mention that having first visited the western coast by the Pass above described, where even the palanquin had often to be abandoned to be lifted over masses of rock or up the precipitous banks of the torrents, we quitted it at the close of the period in a first-class railway carriage, at a steady rate of thirty-five miles an hour. It is strange to look back over the intervening space, to trace the stages by which so great a contrast was brought about and thus to mark the progress of a single generation. Within that period twelve good roads were constructed through the mountains into Canara alone, and several into Malabar; finally the railway was completed and improvement is now advancing with accelerated steps.

It would be gratifying if it could be shown that an enlightened policy had given the first stimulus to this march of improvement, but in the country which we are describing it originated in another cause, namely a sense of danger. When the tranquil state of Mysore under British management encouraged the industry of the people, a surplus produce was created, which naturally sought an outlet through the mountains to the sea; but it had to force its way by mountain paths and torrent beds on half laden bullocks to the coast. The local authorities who witnessed the struggles of the trade were anxious enough to open out the country, but the means at their disposal were trifling, and their representations to a distant Government met with little attention. But in 1834 the want of communications was severely felt. The Rajah of Coorg's insane cruelties and wanton insults compelled the Governor General Lord William Bentinck to resolve to deprive him of his kingdom and to declare war against him. The natural strength of the country and the warlike character of the people of Coorg rendered the task of conquering this petty state far from an easy one. Although surrounded on all sides by British territory, the capital of this mountain stronghold occupied the crest of the Ghâts where they attain an elevation of four thousand five hundred feet, and the dense jungles and steep ravines offered most serious obstacles to the march of regular troops. Four separate columns each composed partly of English

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and partly of Native troops were organized and ordered to enter the country simultaneously. But so impenetrable was the jungle that with the aid of a few stockades the hardy mountaineers were able to hold their invaders in check. The column from the north-east was repulsed at the Buckshie stockade. The western column from Mangalore was driven back to the coast. The south-western column from Cannanore was checked in the pass of the Stoney River, a name sufficiently indicative of the nature of the road. The south-eastern column which entered by Fraserpett had only a slight skirmish with the enemy and was met by overtures of peace from the affrighted Rajah before the more difficult country had been entered. Had not the Rajah, to the disgust of his devoted subjects, surrendered his country and person, it must have cost many a life and a protracted war before the conquest could have been achieved, for the monsoon was close at hand during which no troops could have kept the field.

It would have been a measure of only ordinary precaution had our rulers taken warning from experience and provided against the recurrence of such difficulties, nor was an example wanting. To the north of Coorg on a plateau above the Ghâts is a tract of country called Bollama formerly inhabited by a turbulent race of people. After the conquest of Mysore the people broke out into insurrection, but they were under the vigorous rule of Sir Arthur Wellesley who immediately cut a military road through the country which has ever since remained undisturbed; but no such precaution was taken in regard to Coorg. In 1837 when the country had been in our possession for about three years, an insurrection broke out in Lower Coorg, and the force sent to quell it found itself opposed by the same difficulties as had met the first invading force; from a want of roads and carriage it was unable to penetrate the country. The absence of a common purpose between the Upper and Lower Coorgs alone saved the Government from serious and costly disaster. The Upper Coorgs after some wavering, sided with the Government, and the ease with which they suppressed the rebellion showed to those who witnessed it how serious would have been the resistance of a people so accomplished in mountain warfare.

This second warning was not neglected, the force sent into the country on this occasion was accompanied by a young Engineer of more than common talent and energy. Lieutenant Fast undertook to construct a carriage-road through the mountains in a line from Mysore to the coast. Lord Elpinstone was then Governor of Madras and no one more thoroughly appreciа-

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ted the value of internal communications. Taking advantage of the emergency to set aside the restrictive rules which deprived the minor presidencies of all freedom of action, orders were issued to carry on the work with all practicable speed, and if possible, to open the road before the ensuing rains. With such full powers Lieutenant Fast and his colleagues carried on the work with vigor, and the Sampajee Ghât connecting Mysore with Mangalore through Mercara the capital of Coorg, the first road carried through the Southern Ghâts on scientific principles forms a lasting monument to the professional skill of this young Officer.

Those who saw this noble work when such works were new, and observed the intelligent eye and animated face of the young Engineer by whom it was planned and executed augured a bright career for one who so early in his service had done so much; but Lieutenant Fast's career was a short one. There is a more formidable enemy to be encountered in Indian Engineering than the granite precipice or the densest jungle; it is the deadly fever which lurks in the ravines. To this Lieutenant Fast fell a victim when carrying out another public work under Lord Elphinstone's orders, and the Madras Corps of Engineers lost one who promised to rank high even among its De Harilands and Cottons. Lord Elphinstone directed that a tablet to Lieutenant Fast's memory should be erected at the head of the Sampajee Ghât. A more lasting monument would have been assigned by directing that the Ghât itself should bear his name and in all official papers be called Fast's Ghât.

Although constructed for military purposes, Lord Elphinstone was fully alive to the commercial advantages of this road. It is true that if selected as a commercial line, the choice would have been a mistake, for many a line of far greater importance in this respect remained unimproved. The portion of Mysore from which it started was thinly peopled. The Coorgs were unacquainted with commerce having been jealously debarred from it by their Rajah, and the line which the road followed was for many a mile through dense jungle. Every tree which when felled would fall across the road and form a barrier, had, for military reasons, to be removed, and this implied a clearing of from 60 to 100 feet on the slopes of the mountains and this for continuous miles, for not a single clearing for cultivation then existed. But even with these disadvantages the outlay as a money speculation has proved a great success. Within a short period the cost of the road was more than covered by the increase of the Salt Revenue on the coast, while the easy access to a market gave a stimulus to the agriculture of Coorg, and boundaries long neglected and almost obsolete began to be care-

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fully renewed, and attested the increased value of the land, and at the present day extensive Coffee plantations line both sides of the road. Even as early as 1851, when the commission on public works was pursuing its enquiries, the Collector of Canara was able to prove that the cost of the Sampajee Ghât had been amply repaid.

To Lieutenant Fast then the honor rightly belongs of having been the chief pioneer in opening out the valuable tract of the Southern Ghâts, of having made them the scene of an active commerce and the site of a lucrative culture. From the successful opening of the Sampajee Ghât a steady progress in road making has followed. The Manjerabad Ghât and the Agombay Ghât were planned and executed by Captain (now Colonel) Green and subsequently a whole series of passes were traced and in a great measure carried out by Lieutenant (now Colonel) Walker. The progress was slow, it is true, and the labour extended over a period of many years, and at the present day, when even a lavish expenditure on public works is recognized as sound wisdom, it is almost with incredulity that one recalls the efforts necessary on part the of local officers to obtain from distant rulers the means of pouring a full tide of wealth into the public treasury. But at the same time it may not be unwise to look back to the expenditure of those days and the effect produced by it, at a time when there appears a danger of running into the opposite extreme.

We find in an official report from the Collector of Canara the following table, which epitomizes the result of mountain road-making in its early stages up to 1852,and which may come to be looked upon as a curiosity in future years if the cost of public works in India should continue to increase at its present rate.

Name of The Ghât	Length in miles.	When opened	Cost Rupees.	
Sampajee	66	1838	263,727	Bridged throughout.
Agombay	5	1838	13,780	Bridged.
Manjerabad	29	1843	84,356	Temporary Timber Bridges.
Daivamunnay	78	1843	78,644	Bridged.
Arbyle	9½	1843	9,351	Temporary Bridges.
Neelcoond	8	1843	7,500	,,
Cooloor	31	1846	9,700	,,

In commenting upon this account the Collector remarked 'Recent experience has proved the following facts: That at the 'rate of about £40 per mile a trace can be made on scientific 'principles and opened to the extent of five or six feet, being 'sufficient to allow of loaded bullocks using it. When so made 'the traces are immediately used in supercession of the old Ghâts,

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'which are the beds of the mountain torrents. When so traced 'the native road-superintendents of the District are competent 'to convert them into good cart roads at about 1,000 Rupees or '£100 per mile. These can be afterwards bridged at a very 'cheap rate with timber bridges on stone piers calculated to last 'for twenty or thirty years."

It was on this plan that it was sought to open the country by a series of cheap works into which the macadamized road or the railroad should be engrafted. The result of the system as far as it had been carried in 1852 was carefully analysed by the Public Works Commission, and it was declared by them that 'the Go- 'vernment had received a direct return on the capital expended 'on these roads of 10¼ per cent. in the form of Land Revenue and 'of 10 per cent. in the form of Salt Revenue being a total net 'profit of 20¼ per cent. on the outlay clear of all charges.'

Circumstances in India have so greatly changed since Lord Dalhousie inaugurated the railway system and appointed a Commission in each presidency to investigate the state of the Public Works Department, and since in his newly annexed territories he gave examples of the manner, in which the conquering and civilized power should inaugurate its sway, that the above facts have little more than an historical interest as an episode in the history of Indian inland communications. But we are persuaded that throughout a large portion of India and for many years to come a series of cheap roads such as were then constructed and can be executed by the indigenous labour and skill of the country under a certain degree of scientific direction will be found much more efficacious than the costly railway and even the cheaper tramway; and be believe that in all parts of India, even where the railway and the tram are needed to carry off the great flood of commerce, they should not supersede and place in abeyance these humble works, but both should form parts of one well-considered system.

After a long experience of mountain road-making in the Southern Ghâts we may here state that the general result of our observation is that the road best calculated to develope the resources of the Ghâts, that is to say the one sufficient for the wants of existing commerce, and combining facility of construction with economy of expenditure is one having a gradient varying from one in sixteen to one in thirty, and a breadth varying from fifteen to eighteen feet. A road in which these variations are allowed may appear a very rude work to the English engineer accustomed to require perfection of finish almost without reference to cost, but it supplies all the wants of the trade as it now exists, and will do so for many years to come; and when

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skilled labour and scientific superintendence are as scarce as they are at present in India they should be applied to a few of the most important lines, while rapidity and cheapness of construction should be the general rule. Several circumstances should be kept in view. The most important of all is that the substitution of wheeled carriage for the pack bullock is beyond all calculation a greater advance in intercommunication than the change from the rude country cart to the railway car. A second is that in the country we have described nearly the whole of the trade is down and not up the Ghâts; that what is brought down is for the most part bulky raw produce, and what is taken up consists chiefly of manufactured goods. The return carriage half laden is therefore more than sufficient for the upward traffic. We are satisfied from long experience that an unequal gradient with an occasional steep pull of one in sixteen is preferable to a protracted and uniform pull of say one in thirty. To many engineers a zigzag is hateful and they will take a long sweep at a considerable cost to avoid it; but we do not hesitate to own a liking to an occasional zigzag. Of course if descent and progress towards the coast can be combined and a zigzag avoided, so much the better, but where the top and bottom of the Ghât are given points, we do not see the great advantage of the long sweep over a well made zigzag. If the turns are made at a dead level the occasional pause and a shift of the harness afford great relief to the cattle. With regard to the breadth of the Ghât, when it is remembered that on the scarp of a hill by doubling the breadth of the road you quadruple the cost, that is, that you can make four miles of Ghât, 15 feet in width for the same cost as one mile 30 feet in width, the importance of economy in this respect will be appreciated.

We have observed at the beginning of this article that the opening out of the Southern Ghâts by these passes had had a material influence as well on the cultivation of Coffee, as on the transport of Cotton. We shall now turn aside to recall a few facts concerning the progress of Coffee-cultivation in Southern India and especially on the Ghâts; and afterwards take a glance at a portion of our tract which is the scene of the Cotton trade, and on that account has recently occupied a good deal of the attention of the public press of India. When the kingdom of Mysore was brought under British management Coffee-cultivation was not unknown, but it was repressed by monopoly. We have not learnt when the plant was first introduced, nor have we at hand any statistics of its cultivation at this early period. The monopoly had become the property of an English firm at Madras, and the Coffee was chiefly exported from the Eastern Coast. But as soon

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as the period had elapsed for which the monopoly had been rented, the strong representation of the Superintendent of the Nugger Division (Mr. Hudleston Stokes) led the Commissioner to throw open the trade and substitute an excise on the Coffee. Coffee land was exempted from assessment and a duty of eight annas (or one shilling) per maund was demanded on the removal of the produce. This was a heavy duty, but even under it the spread of the cultivation was steady. Of late years the duty has been reduced to four annas per maund, and the cultivation has rapidly increased.

Since the removal of the monopoly the largest proportion of the produce has sought the ports of the western coast, and the exports from Canara, being entirely the produce of Mysore and Coorg, afford a faithful indication of the growth of the trade in later years. We find that whereas the quantity exported in 1850-51 amounted to 1,643,713 lbs. valued at Rs. 148,197, (or £14,800) it rose in 1860-61 to 6,194,686 lbs. valued at Rs. 1,152,137 (or £115,200). If we examime the trade tables down to 1860-1 we see it increasing in the last two years by £40,000 and £30,000 a year. But even this is not the whole increase of Coffee cultivation in Mysore. A portion of the produce still finds its way to the port of Madras; and the exports from Madras increased in the last two years of the series about £14,000 and £44,000 respectively giving a total increase in two years of £128,000 in the value of this trade.

The principle site of the Coffee trade of Mysore is the base of the Bababoodan mountain in the neighbourhood of the town of Chie Magalore; the Bababoodan peak rises from the higher table-land of Mysore and its lower slopes afford a soil and enjoy a climate peculiarly adapted to the growth of Coffee. The produce from this site, known as Cannans Mysore, bears the highest price in the London market. When planting was commenced in this region, labour was abundant, and one anna, or a penny half penny per day, was the common rate of wages. The cultivation is not confined to the English planter but is extensively carried on by the native landowners, and of late years some of the native Christians of Canara have taken up land in Mysore for this purpose. A new Ghât was traced with the express view of aiding this trade and is known as the Coffee Ghât and although still in a very incomplete state owing to Lord Canning's restrictive order, which arrested the progress of all public works in the Madras Presidency, it is much used by traders. At the fort of Mangalore, at which this road, as well as those of Agombay, Manjerabad and Sampajee, converge, in common with several other passes which still remain in their natural state, the Coffee-trade now gives

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employment to a large portion of the population, and steam machinery has been called in to aid the labour of man.

The tract of the Southern Ghâts embraced within the passes above named may be estimated as extending about 150 miles from the Agombay Ghât to Mercara, and to this region the Coffee cultivation of the Canara Ghâts may be considered as at present limited although partial experiments in North Canara and other places give every encouragement to the prospect of its extension over a far wider area.

While thus the cultivation was extending in Mysore the Talook of Malabar became the scene of busy English enterprise. This tract of country is situated eastward of Tellichery occupying a plateau intermediate between the low country and the higher table land of the Neelgherries. In this portion of the range the cultivation is entirely owing to English energy, and has been carried on under many disadvantages with regard to the supply of labour and difficulty of communication, and we are inclined to believe with as little advantage of soil and climate as in any place where the cultivation had been tried. But English energy has carried this little colony ahead in the race, and in ten years the exports have risen from £13,500, to £137,700, and there is every reason to believe that in two or three years from the date of our last return the yield will be increased by one half. The estates are now from 55 to 65 in number. By the latest accounts which we have been able to procure there are in the estates held by Europeans 4880 acres in bearing, and 2500 planted but not in full bearing. The estates in the possession of Natives are returned at 4000 acres.

The produce of Waynáad is chiefly exported from Tellicherry, one of the oldest possessions of the East India Company on the Malabar Coast. From this port the communication with the interior is said to be in a very imperfect state and forms the subject of loud complaints on the part of the English settlers. In the earlier period of British occupation the Waynáad was a wild and turbulent district, and a small local force called the Waynáad Rangers under an English Officer had its head quarters at Manantoddy, and the pass between Mysore and Sultan's battery was commanded by this detachment and kept in partial repair. The protection afforded by this force and the comparative facilities for trade which the pass afforded led to the first establishment of this now important cultivation; but the action of Government has by no means kept pace with the wants of the planter.

It has been unfortunate for the interests of this trade that the Financial Minister, Mr. Wilson, while desirous, and most justly so, of encouraging the settlement of English planters and the

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application of English capital to the soil of India, was led to act in this matter before he had the opportunity of acquainting himself with the real wants of the country. Until Mr. Wilson brought forward his budget, an export duty of 3 per cent. was levied on Coffee. This duty Mr. Wilson swept away with the avowed object of encouraging production. But the great want of the Coffee planter was not a pecuniary encouragement but the construction of those lines of communication which the exhaustion of the Indian treasury and Lord Canning's restrictive order had suspended. The trade required no such encouragement as an exemption from duties paid by other products of the country. We have seen it flourishing in Mysore with an excise of four annas (6d.) per maund, and it would have been far more to the interest of the planter to have had the duty still levied, the amount being applied to the construction of roads, than it has been to have the duty remitted and the roads unmade. The Coffee exports of Madras amount to £320,000, and 3 per cent. on this amounts to £9,600. Had this amount been levied and applied to improving the communications through the Coffee country, it would have been more than saved to the planter on the cost of transport, and every year would have seen fresh tracts of soil made accessible to his enterprize. We have shown above that for little more than £100 a mile roads can be, and have been, constructed so as to allow of the substitution of wheeled carriage for pack-bullocks, and the fund above specified would allow of the addition of 90 miles of road every year to the communications of the country. Even at this late date the planters would do well to petition the Government that this duty be levied at the seaports as a turnpike toll and formed into a fund for the construction and repair of the roads.

From Waynáad the Coffee cultivation has crept up the sides of the Neelgherries to the very verge of the region of frost. The greater the elevation at which it is grown the heavier appears the berry of the coffee and the finer its flavour. About six thousand feet is the greatest height at which it is now successfully cultivated.

We have not room nor is this the place to describe either the process of Coffee cultivation or the profits on capital to be expected from it, but that with proper management and with the present prices it is abundantly remunerative there is now no manner of doubt. We have it on good authority that a planter, who gets less than half a ton of Coffee per acre from the lands of Waynáad has himself and not his land to blame. We have heard of a yield of 40 tons of Coffee from a plantation of 50 acres on the Neelgherries, and we have heard of exceptional cases in which

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three tons have been gathered from a single acre. The Madras cultivator enjoys unusual advantages in comparison with other countries. "The tax paid in Ceylon for the supply of labour alone 'would amount in the case of employing 200 men (the generally 'desired number by rough calculation) on an estate of 200 acres, "(generally considered the most advantageous size) to £75 annually."* This tax is, we understand, one self-imposed by the planters of Ceylon for the establishment of an agency for the encouragement of immigration, and has to be superadded to the enhanced wages which it is necessary to offer to the coolies to tempt them from their native country. But it needs no statistics to show that if coolies can be profitably transported to Ceylon, and the West Indies, much more can they be advantageously enployed in their own country, if the soil is not of far inferior quality, which, we believe, is by no means the case.

With regard to the future prospects of the Coffee cultivation of the Southern Ghâts we shall only observe that, if it is not limited by the extent of the available land, there appears to be no assignable limit to its extension. The whole exports of Coffee from the Madras Presidency amount at present to £324,000 while Ceylon exports to the value of a million and a half, and Brazil to the value of five millions with all the cost of slave labour or of free labour imported from Germany. And the market is at the same time rapidly extending, owing in a great degree to the increased consumption of Coffee by the labouring classes of England, as well as to the rapid extension of our colonial empire.

We shall endeavour before we close this article when we have completed our survey of the Southern Ghâts to form some estimate of the area still available for cultivation; but we now proceed to view our mountain passes as the channels of another branch of commerce, the Cotton trade of Southern India.

Three small principalities, Soopa, Sonda and Bilghi occupied the jungly table land of the Southern Ghâts, extending from the Goa frontier to the border of Mysore near Siddapoor being a distance of 80 miles in a straight line. Having been absorbed by the arms of Hyder Ali and Tippoo into the kingdom of Mysore they passed after the fall of Seringapatam into British possession, in common with the province of Canara, and are known by the name of Canara Balaghât, (or above the Ghâts). The country when first occupied was jungly, wild and unhealthy, but valuable for the rich gardens of pepper, cardamons and betelnut which occupy its deep wooded ravines, nourished by the

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* Report of Mr. Thomas, Assistant Collector of Malabar.

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springs which the density of the jungle render perennial, and by the leaf manure which the jungle yields in abundance and which native gardeners well know how to value. The gardens occupied the upper and consequently the narrowest and most shaded part of the ravines, and below them a few terraced fields yielded rich crops of rice and sugar-cane. In those secluded farms the Haig Brahmins, their possessors, lived in clustered families ; ignorant, suspicious and poor amid the richest crops that the bounty of nature ever yielded. The betel palms there grow so close together that the first gatherer after ascending one slender stem can pass round the whole garden by swinging from tree to tree. Up every stem the pepper vine is trained, and between them the cardamon is planted in alternate rows with the shadowy plantain. The latter alone fails to yield its fruit in this dense shade, and is planted only to be cut down and add to the decaying vegetable manure. But in full proportion to this bounty of nature had been the exactions of the tax-gatherer, and the money-lender, and the garden Ryets were an impoverished and indebted race. The rest of the country was almost uninterrupted jungle, abounding in game and thieves ; for it was the safe retreat of bands of Pindaries and other lawless tribes from the more open Southern Mahratta country. So unhealthy was the country deemed that for many years it was considered to be unsuited for European residence and was only occasionally visited by a Revenue Officer addicted to sport. Even the annual jummabundy was entrusted to the native officials who hurried through their duty and returned to the coast with as little delay as possible.

Through this country there was from the first a very brisk trade carried on by Brinjeries in large camps between the Southern Mahratta country and the coast, and between the cultivators of the country and the large cities of the Deccan, where the betel-nut and cardamons were chiefly consumed. Even the wheat of Oomrawutee, distant 500 miles, found its way to Canara to be exchanged for these spices. After a few years the Balaghat proved to be more healthy, and every cold season it was visited by the Collector and his Assistants, and the coldness of the climate and abundance of sport rendered this annual tour a time of great enjoyment. It was on one of these visits in 1832 that the Collector of Canara and his Assistant narrowly escaped with their lives during a riot raised in the town of Sirsi by the Nugger insurgent Boodda Bussapa. After standing a two days' seige from the Mussulman population excited to madness by the usual scheme of throwing a pig into the mosque, the timely arrival of troops from Honore

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relieved them from their perilous position. From this time Sirsi, the capital town of the Balaghat, was furnished with a small detachment of troops and shortly afterwards one of the Sub-Collectors built a house there and made it his permanent headquarters.

It would be difficult, perhaps, to select any portion of territory which should illustrate more distinctly the effect of one English official resident among the native population of India than the Balaghat of Canara. Secluded from the rest of the district by its peculiar position the Balaghat became the almost independent charge of the Sub-Collector to whom the people, grateful for his presence, paid willing obedience, while he, cognizant of all their wants, was able to lay them before the Government with influence and success. One of the first measures required was the suppression of robberies, committed by the large bands of Pindaries from the Mahratta country, which gave great insecurity to trade. This was effected by raising a body of 80 Military Police who patrolled the chief lines of commerce, and by obtaining permission for the merchants to pay their money into the Treasury of Bellary and other districts and travel with bills instead of cash. The effect of these measures was great and immediate, but a measure as urgently required was the construction of roads.

By this time the Cotton trade of the Southern Mahratta country had risen to importance and thousands of bullocks yearly forced their way through the jungle down the steep Ghât of Neelcond to the inconvenient port of Compta, leaving a considerable portion of their burden on the bushes and bearing the rest in a damaged state to its destination. As early as 1835 sanction was obtained for a small outlay to improve the Ghât and road between Compta and Lusi and a large increase of trade was the immediate result. This was an important step but it was not till a late date that the construction of a pass calculated for wheeled carriage was thought an attainable object. But after the successful construction of the Sampajee Ghât the practicability of such a work at a moderate cost was put beyond question, and all that was required was to prove to our rulers that such a work would repay its cost, and to obtain their sanction for the outlay. The difficulty of this task will hardly appear credible to those whose knowledge of Indian Government is of recent date. But the object was obtained by the persevering efforts of one of the Sub-Collectors, who had held sway over and become attached to this territory. But it was only by providing himself with complete plans and estimates of the work, together with statistics of the trade, and armed with these proceeding to England, and personally boring the

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Court of Directors, and when this failed proceeding to Manchester and enlisting the interest of influential men there and bringing them to bear upon the Court, that he at last obtained a dispatch from the Court of Directors to the Government of Madras sanctioning the construction of a cart road by the Daivamunnay Ghât to aid the Cotton trade of North Canara.

The Daivamunnay Ghât was constructed in 1843 at an expense of 79,000 Rupees, and George Stephenson never in after life contemplated with more satisfaction the rapid passage of a railway train than those who had witnessed the early struggle of this trade watched the continuous line of carts slowly winding down the Ghât, and proving that at least one great step in civilization had been attained. But he, to whose persevering character the attainment of this object was chiefly due, only heard from a distance of the success of his exertions. On his return from England he was appointed to other duties and not long afterwards terminated his honorable and useful career. During one of his explorations of the Ghât he discovered the beautiful falls, second only to those of Gairsippa, which are known as the Lushington Falls; and it is our hope that they will always be thus called and so perpetuate the name of one of the most conscientious of public servants and most warm-hearted of friends whose memory is indissolubly connected with all our recollections of North Canara.

The Daivamunnay Ghât soon proved inadequate to the necessities of the trade which increased with great rapidity, and every exertion was made to open out new lines. The abolition of the land customs, in which the excise on pepper, cardamoms and betel was included, took place at this time and removed one great impediment from trade, and raised the Garden Ryots from a state of poverty to one of comfort and independence. The means at the disposal of the local authorities would allow of nothing more than practicable traces of Ghâts being made, and these were opened in quick succession. The Arbyle Ghât was constructed between Liddapoor and Compta with a branch to Ancola. The Mullamunnay Ghât connected the Mysore country with Honore and Compta, but still the Daivamunnay Ghât was over-crowded with cart and bullock traffic. To give further relief a trace which had been made on the old Neelcond line was opened out for bullock traffic; and thus four lines of Ghât converged on Compta and the trade was proportionably augmented.

But the port of Compta was obviously unsuited to be the emporium of a trade which had assumed these large dimensions and the trade itself was circuitous and expensive. The question

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had long been asked whether a more commodious harbour could not be found, and now the question arose, was not the trade of sufficient importance to be self-dependent instead of tributary to Bombay? Why should not the goods be conveyed from a suitable harbour on the coast direct to England and China, and thus the cost of the voyage to Bombay and all the attendant charges at Bombay be saved, and shared between the grower and the manufacturer? Several attempts were made to direct the trade to the noble estuary of Suddery which lies close to Compta. But the Suddery itself was but an inland backwater with a dangerous and inconvenient bar, while a few miles to the north lay the Bay of Sedashagar formed by the promontory of Carwar Head protecting it from the south-west monsoon and apparently forming a safe and commodious harbour. To ascertain whether such was really the case, and if so to establish on the western coast, equi-distant from Bombay and Colombo, the emporium of a direct trade with the great marts of Europe and China appeared to the Collector of Canara to be the surest method of promoting the interests of the country.

With this view special application was made through the Madras Government for the services of Lieutenant Taylor, of the Bombay Navy, to report upon the capabilities of both Sedashagar Bay and Suddery and the result was a beautiful chart of the Bay of Sedashagar with the most favourable opinion of a thoroughly experienced hydrographer and sailor of its capabilities as a harbour of refuge and commercial emporium. Lieutenant Taylor's report was laid before the Government of Madras, and was by it forwarded to the Government of Bombay for its opinion. At Bombay the project was received if not with opposition at least with coldness. The Government of Bombay sought the opinion of the Chamber of Commerce whose reply implied that they thought that Bombay itself sufficiently supplied the wants of the western coast, and that another harbour would be a superfluity. Lord Harris, the Governor of Madras, however fully appreciated the importance of the question and himself visited Sedashagar calling Sir Arthur Cotton to meet him there. The opinion of Sir Arthur Cotton as to the advantages of the harbour was enthusiastically favourable, and a breakwater, a pier and lighthouse, with a series of inland canals, were quickly in vision. But in the meanwhile the completion of lines of road already traced on the north and south banks of the Sedashagar river conveying the inland traffic to the highest navigable point, was the great requirement, and this was ordered and the work actively in progress when the mutinies broke out, and Lord Canning's order to stop-

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all public works fell upon the scene of busy progress in north Canara.

We shall use this pause to see what has been the effect of the outlay of public money as far as it was carried up to this period. We have shown that through the line of Ghâts from Goa to Liddapoor being 80 miles in length, six passes had been opened. They were in more or less advanced stages from the Daivamunnay Ghât which had been metalled to the Kyga Ghât of which only a narrow trace had been made. We shall endeavour to show what developement accompanied this early stage of public improvement.

We have stated above that in 1853 the Madras Commission on Public Works found that the roads of Canara were returning to Government a net profit of 20 per cent, from the two sources of Land and Salt Revenue; we shall now take the ten years from 1851 to 1860 and show what has been the progress from about the last year on which the Commission founded its report to the last at our own command. Omitting all fractions below a quarter of a lac we find that the import trade rose within the above period from $4\frac{1}{4}$ lacs to $25\frac{1}{2}$ lacs. The value of Exports rose from $30\frac{1}{2}$ to $102\frac{1}{4}$ lacs. Thus the whole trade increased from $34\frac{3}{4}$ lacs (£347,500) to $127\frac{3}{4}$ lacs (£1,277,500). In the same period the Salt Revenue rose from £14,000 to £31,000, that is to say, was more than doubled. The gradual clearance of the jungle raised the Land Revenue from about eight to nearly nine lacs of Rupees (or from £80,000 to £90,000), while improved supervision over the teak forests added a Forest Revenue which in the last year of the series amounted to £25,000. The minor sources of Revenue shared in this prosperity, and if any one fond of statistics will refer to the annexed Table he will find many unmistakable signs of prosperity such as the fourfold increase of the Farry-farm within these ten years. Our statistics, as we have stated, end in 1860, before the American war had influenced the Cotton trade of India; but still the export of Cotton, included in the general total of exports given above, had tripled in quantity and increased fourfold in value.

We have thus given a short narrative of the early rise of the trade of North Canara through that period of struggle in the history of our Indian rule during which those on the spot could not fail to see what were the wants of the country, but were unable to impart their convictions to their distant masters, to whom these ideas were strange and to whom India was the India of their youth. At last the change came, the Government was transferred to the Crown, the mutinies were suppressed, the Finances were restored, and the restrictive order of Lord Canning

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withdrawn, and an era of improvement was commenced, in which the establishment of Sedashagar as a commercial emporium was to have an important place. But with the announcement of this intention on the part of the Government of India came the proposition that Sedashagar should be transferred from the Madras Government to that of Bombay.

It is not surprising that the Madras Government should have remonstrated against this severance of one of its most rising and important provinces, and the transfer of so large a portion of its trade to another Presidency. We find that between 1857-8 and 1861-2, the trade of Madras rose from 262 lacs to 1161 lacs (Homeward Mail April 21st 1863). We cannot learn what was the proportion borne by North Canara later than 1859-60 when it amounted to one-eighth of the whole trade of the Presidency. But the transfer has been ordered and carried out, and we have no desire to re-open the warm discussions to which the question gave rise in the public press of Bombay farther than by correcting, as we hope we have done by the above narrative, some of the erroneous impressions which were received by many, and repeated even by the leading journal of Europe, as to the state of the province under the Government of Madras. The Bombay Government has received this tract of country and the site of a magnificent harbour under pledges which will, doubtless, be honorably and zealously fulfilled, and in the future prosperity of Sedashagar the authorities of Madras will see the development of the plans which they long ago laid before the Government to which Bombay and Madras are alike subordinate. But it is important to remember, and the people of Manchester should carefully observe, that the harbour of Sedashagar will influence the growth of Cotton in India in proportion, not to its connexion with, but to its separation from Bombay. If the trade is still to be a circuitous one, little is gained. But if all the cost of the voyage to Bombay is saved, and a direct trade with England is established; that is to say if the price given at Bombay for cotton should now be offered at Sedashagar, the Cotton grower will receive a sensible profit.

It is not to be expected that Sedashagar will ever become so large a mart as Bombay, Calcutta or Karachee which receive the products of vast inland countries. Its trade will resemble but probably exceed that of Madras. But in advantage of situation, especially as regards European settlers, it will excel all of these ports. In beauty of scenery it resembles but surpasses Bombay. The climate is healthy and the mountain of which Garwar Head is the promontory attains an attitude of 1600 feet within three miles of the bay, so that the merchant may there

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find the same climate as the Governor of Bombay and his staff seek by the aid of the railway on the hill of Mazagon; and with the aid of a glass he may see his ships loading in the bay below. Should a change to a somewhat colder climate be desired the beautiful river is navigable by steam to the foot of the Ghâts and ascending the Unshi Ghât on the north bank a pleasant ride takes the traveller to the village of Unshi at the summit of the Ghât at one elevation about 2000 feet high. Above this rises a hill 400 feet high, and if the traveller ascends to the crest he will obtain a magnificent view of the plateau over which the Ghât passes, and of the low country beyond with the noble Black river flowing through it, to Sedashagar Bay and Beitcole Cove, seen distinctly in the distance. Should the merchant weary with the labours of the week make this expedition on Saturday evening he will on rising on the Sunday morning find the Thermometer at 64 and enjoy throughout the day a cool and refreshing climate in which he may surround himself with all the charms of the English garden. Exposed to the full influence of the sea breeze the crest of the Southern Ghâts throughout their whole length is generally free from fever, and if actually at the top of the Ghât, not short of the summit, freshness of climate is almost equally obtained whether the elevation be 2000 or 4000 feet. Here therefore the merchant has close at hand the advantages which the merchant of Bombay seeks at Kandalah or Mahaboluishwar and which the merchant of Calcutta or Karachee seeks in vain. We trust that a busy and beneficent commerce will soon enliven the lonely bay and noble river of Sedashagar and spread the blessings of civilizaton over the adjoining country, which, rich in Teak timber, iron ore and in fuel, invites alike the merchant and the manufacturer.

We must now invite our readers to accompany us to another part of the Southern Ghât, and our narrative has already extended to such a length that our passage must be rapid. We pass over a space of 450 miles, from Sedashagar to the Ghâts opposite to the port of Aleppy in Travancore. In doing so we have passed along the whole district of Canara, and the whole length of Malabar, including the western slopes of the Neelgherries. We have crossed the railway which connects the two coasts through the Palghat Gap, and passing by Anamullay range with its extensive Teak forests, and the Palni range branching into the Madura district, we come to the chain lofty but narrow which separates Travancore from the Carnatic.

The sanatarium of the Neelgherries is too important to be more than noted here. The Anamullays have been described by Dr. Cleghorn, in his work on the forests of Southern India; and the

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Palnis have been pleasantly sketched by Sir Charles Trevelyan in one of those minutes so characteristic of the active, hopeful mind of the writer.

'The Palni Hills are composed of two ranges, the upper and 'the lower, which blend into each other. The European station 'is 7,230 feet high, but the highest peaks of the range are 'upwards of 8,000.

'The upper range is entirely free from fever, and it is accessi- 'ble without having to pass through any Terai or fever belt. 'The climate is equal to the best climates of the Indian 'mountain regions. The vegetation has a much closer analogy 'to that of England than is the case at Simla. The fern, the 'bramble, violets and several kinds of moss grow wild here, as 'they do at home. The nettle and cowslip assume Brobdigna- 'gian proportions, and fruits strongly similar in appearance and 'taste to the wortleberry and gooseberry grow upon trees. The 'nettle will sting here which it wont at Simla. Mixed with 'these are the rhododendron which here really deserves to be 'called a 'tree rose,' the magnolia, and products of a more 'genial clime. These hill stations would not be temporary 'Sanataria to persons who have been relaxed by the heat of the 'plains, if the air were harsh and bleak as it often is in England. 'The flora here is beautiful. At one small spring, I saw 'gentians of two kinds, everlasting flowers and balsams, besides 'other flowers, the names of which I did not know.

The potatoes are so mealy and good that I am surprised that, 'notwithstanding the present imperfect means of conveyance, 'Europeans have not settled here to grow them for sale in the 'plains. The turnips also are excellent; and every English 'vegetable and fruit, except currants and gooseberries may be 'cultivated with advantage. Garlic is grown in great quanti- 'ties in the Native villages for export to the plains.

'The summit of the upper range extends, in long undulations, 'over a space twenty miles in length by fourteen in breadth, it 'is covered with grass which is burnt every year, and cattle and 'sheep graze upon the young shoots. The grass may be improv- 'ed; but, even as it is, horses live upon it, and butter is made 'equal to English butter. There are woods full of timber, some 'of them of great extent, in the ravines and sheltered hollows of 'the plateau. Elk and bison abound in them. The scenery is 'similar in character to the best Highland scenery. In some 'places it is highly romantic. Two remarkable features are 'extensive ledges of smooth, mushroom-shaped rocks over 'which the torrents fall, and natural bridges and under-ground 'chainels through which they percolate.

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'It is an important fact that, as regards much the largest 'proportion of this tract, there is no claim to the soil which can 'interfere with the establishment of the most absolute freehold. 'The villages are few and far between; and the rights of the 'inhabitants are confined to the land they cultivate, or graze 'with their scanty herds and flocks. For eight miles from the 'European station to the hill of Púmbáre, and again in a second 'excursion to the pillar rocks, I did not see the slightest 'symptoms of the land being occupied, even for grazing. Like 'the Australian pastures, these rich grass lands are a highly 'productive capital unappropriated to the use of man; but the 'strange thing here is that the wild lands are in the midst 'of an old inhabited country. There is no trace of ancient 'habitations on the plain plateau. The few native inhabitants 'say that their ancestors were immigrants from the plains at 'no distant period, and every circumstance confirms this statement.

'The ground at the Station is singularly adapted to the object. 'It consists of a large basin, into which numerous spurs, each 'suited for a separate building allotment, are projected from the 'surrounding hills. In the centre is a hill, which will, I hope, 'be crowned by a handsome church; and its sides should be kept 'for public walks and drives, and for the bazar of the place. On 'one side of the basin is a beautiful wood, which has been re- 'served as public property, and walks have been made through it. 'There is abundance of good water from natural springs. Se- 'veral small streams trickle down the wood, and two brooks wind 'through the basin one on each side of the central hill.

'The place is still in its germ. It has been discovered rather 'than occupied by the Civil officers of the district and the 'American Missionaries, who have their hot weather retreats 'there. The entire basin and surrounding hills ought to be ac- 'curately surveyed and divided into suitable allotments, reserving 'the water-ways and the ground required for roads and other 'public purposes. A walk should be kept along the edge of the 'cliff overlooking the low country. The allotments should be 'sold by public auction as they are in demand, and the proceeds 'should be employed in improving the station.

'The soil, in the lower hills is rich, and the scenery is not 'unlike the best parts of Kent. Coffee is successfully grown 'there and the cultivation might be carried to any extent. The 'lower hills are liable to fever but the planters might have their 'dwellings above fever range. There is a magnificent valley in 'the upper range, extending from Púmbáre to Palni, up the sides 'of which the cultivation climbs, amidst wood and undulated 'ground, where Coffee plantations might with advantage be

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'formed. It is like a Swiss valley, only on a much lower scale. 'Ginger, turmeric and cardamoms are also grown in the lower 'range.

'If this important mountain region is made accessible, and 'the land is judiciously sold, the settlement will form itself. I 'made a long and not very safe day's journey to examine the only 'line which is reported by the Engineers to be fit for a wheel- 'road between the plains and the upper range. There are two 'places on this line admirably suited for European farms, one 'at Shembaganur or Magnolia-town, and the other at the site 'of Mr. Blackburne's bungalow which would be the half-way 'house; but, although I have no doubt that a good road 'might be constructed by skilful engineering it would be so 'costly both to make and keep in repair that I cannot recom- 'mend the work being undertaken until the settlement is in a 'more advanced state. Till then, we must be content with the 'horse-path from Periakolam. This is likely to be always the 'quickest route; and ladies may be carried up and down in 'Chaises-à-porteur as they used to be at Simla, and as they now 'are at so many places in Switzerland. A more urgent need, 'and one that may be provided for at a moderate cost, is the 'substitution of a good wheel road for the present execrable and 'dangerous track from the European station to Púmbáre, the 'principal native place in the upper range. This would open 'great part of the plateau and would lead to further improve- 'ment.'

Throughout the former part of this paper we have viewed the passes of the Ghâts chiefly as the channels of the commerce of the fertile table lands of the Deccan and Mysore forcing its way to the great highway of nations. But as we approach the southern extremity of the Ghâts there is little or no table land and the Carnatic and Travancore having each its own seaboard the only object of a commerce over the Ghâts would be the interchange for local consumption of the products of the two sides of the range; and it is not surprising if a barrier of four thousand feet rendered such interchange rare and precarious at a time when even the level country was ill supplied with roads. Accordingly the mountains of Travancore and Cochin have been abandoned to the few and scanty aboriginal tribes which in ages long past sought refuge from invading hordes; and to the wild beasts, especially the elephants, which, driven steadily farther and farther from the North, there find a safe retreat in the tracts marked impervious by even the indefatigable explorers of the Trigonometrical Survey. But it appears to have been the design of Providence, when the-

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earth on which we dwell was fitted for habitation and man was created to inhabit it, that his occupation of it should be complete, and that there should be few portions of it to which his steps should not be allured, and we shall find that however rugged may be the mountain chains either they tempt man to explore them for the mineral wealth which they contain, or by the difference of the produce on the two sides of the range he is induced to force a passage over them for the interchange of the necessaries or luxuries of life. When the chain runs from east to west the difference of latitude and climate naturally causes this effect, and the inhabitants of the chilly north soon found a passage across the Alps and the Pyrenees to seek the grapes and olives of sunny Italy and Spain.* But even where the chain runs north and south and both sides are equally tropical they, generally owing to the difference of the rainfall, differ greatly in climate and consequently in products. This is particularly the case in regard to the Southern Ghâts, and the western coast is rich in betel nuts, cardamoms, pepper, ginger and other spices, which the dryer climate of the Carnatic will hardly yield.

And thus although for some generations while the Peninsula was a prey to war and violence, the mountain passes have been used only by the smuggler who drove a brisk business by running the tobacco of Madura into Travancore, and returning with the pepper and cardamoms of Travancore, all three of which articles of monopoly afforded irresistible temptation under the fiscal system of that State, there is proof that in remote and peaceful times there had been an extensive trade between the western coast and the civilized Kingdom of Madura. In the travels of Bartolomeo written about a century back, mention is made of a town called Canjerapulli which is described as "celebrated for its trade with the kingdom of Madura, which it carried on over the mountains" and there are other allusions to this trade in the same work.

About two years ago the subject began to attract attention when the Government of Travancore, advised by the British

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* As oft have issued, host impelling host,
The blue-eyed myriads from the Baltic coast.
The prostrate south to the destroyer yields
Her boasted titles, and her golden fields.
With grim delight the brood of winter view
A brighter day and heav'ns of azure hue;
Scent the new fragrance of the breathing rose,
And quaff the pendent vintage as it grows.

GRAY.

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Resident was endeavouring to reform its fiscal system and abolish the monopolies which had proved destructive of legitimate trade and most injurious to its subjects. If monopolies were to be abolished legitimate trade and developed production must supply the deficiency, and it became important to ascertain what were the natural resources of the country.

There are few parts of India more beautifully cultivated or more densely peopled than the sea-coast of Travancore, but few more deserted and neglected than the interior. The population, though pressing hard on the means of subsistence, seems to have a horror of the jungle or of any place beyond the range of the cocoanut-tree. Debarred for several generations from the use of arms and generally unaccustomed to the chase the people of Travancore are particularly unenterprising, and the interior of the country is almost unknown to them. The wildest reports of its dangers, of the deadly fever of its jungles, of the numbing cold of its mountains, of the ferocity of its wild beasts, and of the colossal size of its serpents are intentionally spread by the smugglers and greedily believed by the people. These were probably encouraged by the corrupt officials whom the smugglers took care to conciliate, and whom greed and indolence alike deterred from disturbing the existing state of things. And indeed the reports of the state of the country were not without foundation; and they gained support from the fact that of those whom the smugglers enticed to join them few returned to their homes. Cholera, fever, and cold carried off numbers of the gangs bribed to carry the goods over the Ghâts, and others were on their way back robbed of their ill-earned wages, scared by plunderers, and sometimes by protective peons, into the jungles, and, exposed to the night cold or attacked by cholera or fever, they crept into the bushes and there laid down and died, and the jackals held the inquest. This is no fancy picture, but unexaggerated fact; but happily a change is now going on. Civilization is forcing its way into these jungles, and the pioneer here as in so many other moral wildernesses, has been the Christian Missionary.

A small and scattered people, a relic of the early inhabitants of India, dwells on the mountain slopes of this portion of the Ghâts. This people known by the name of Arrians, devil-worshippers in religion and degraded in social position, held occasional intercourse with the Missionaries of Cottyam the chief station of the Church Missionary Society in Travancore. A few years ago this simple people entreated one of the Missionaries to settle among them and raise them from their degradation. Their repeated and pathetic appeals touched the heart of Mr. Henry Baker, and thirty miles within the jungle on the roots of the mountain range

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the small station of Moondakayam became the centre of Missionary action and soon assumed the appearance of a village, with a small wooden Church. Frequent circuits through his widely extended parish, which was about the size of an English county, and an occasional visit to the table-land of the mountain, combined with his free intercourse with the people gave Mr. Baker an accurate knowledge of the country; and from him the Resident received information that the Canjerapulli which Bartolomeo's remark led him to enquire about, was a village near his station, now inhabited by only a few Syrian Christians and Mahomedans, but having signs and traditions of former greatness. Mr. Baker added that portions of an old paved road or Ghât still remained and that the whole line could be traced, although much of it had been broken up by former rulers of Travancore with the view of preventing the smuggling for which the road was then chiefly used.

The Resident laid before the Rajah of Travancore the importance of re-opening this line of communication and of re-constructing with the aid of modern science a work which his predecessors had achieved. The line of road from the sea to the foot of the mountain would pass through the wildest portion of his dominions and through a tract which, though now a dense jungle, shewed by the remains of land marks and enclosures that it had once been thickly peopled. The trade would doubtless immediately revive, for the people of Travancore are still clothed with the cotton fabrics of Madura, and the people of Madura still consume the spices of Travancore. A wide and frequented road would form a barrier to the smuggler whom the wilderness favoured and sheltered, and a change from monopoly to a moderate frontier duty would re-establish a legitimate and lucrative trade. The Rajah of Travancore listened willingly to these suggestions. The destructive pepper monopoly had already fallen. A road was ordered from Cottyam to Canjerapulli, to open out at any rate the low country, and a meeting was arranged between the Resident and the Collector of Madura, on the top of the mountains to ascertain whether a line of road could be opened at a moderate cost. Supposing the road to be completed to Canjerapulli the interval between this spot and the flat country of Madura, to which carts could ply was but twenty-five miles measured on the map. It was an interesting question whether the intervening mountain could be surmounted, and thus a communication formed between two populous districts each requiring the products of the other, which now reached them by the circuitous routes of Palghat Gap or the Aramboli gate.

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This expedition displayed to those who took part in it a very remarkable portion of the Southern Ghâts. Between the crest of the Ghât on the western to that of the eastern side they found about 18 miles of extremely undulating country, table-land it can hardly be called. The peculiar feature of the tract is that along the spine of this ridge in a deep groove, having a course from south to north, runs a wide river at an elevation above the sea of three thousand feet. This river called the Periaur (literally *large river*) has its rise in a dense impenetrable jungle from which it issues in large volume. Its course continues in a northerly line for 50 miles before it finds a channel westward, through which its waters reach the estuary of Cochin.

In ascending from the west the party followed the line of the old Ghât. For the greater portion of the way the ascent was easy, and here either the road had never been paved, or else the paving stones, except in a few spots, had been removed. But at an elevation of about 2,500 feet the difficulties increased, and these the engineers of the past ages had endeavoured to overcome by converting the abrupt and stony path into a series of gigantic steps of unhewn granite masses. Eight hundred feet of this ascent had to be overcome, and then the full height of the pass appeared to be surmounted. But on reaching the edge it proved that this was only a ridge connected with the main chain by a saddle 800 feet below. To reach this saddle similar paved inclines and huge steps had to be descended, then a final ascent of 1,000 feet led to the summit of the Ghâts.

When the summit was attained any toil that had been encountered, even including the extra ascent and descent of 800 feet, was felt to be amply repaid by the grandeur of the scene and the freshness of the climate. Undulating grassy hills with wooded valleys stretched eastward from the edge of an amphitheatre of mountains facing the western sun. At the edge of this amphitheatre the sea breeze blew fresh from the ocean, which was seen bounding the horizon beyond an outstretched map of the kingdom of Travancore. And what was most gratifying a spur of the mountain was seen to run exactly in the direction required for a road at a proper incline; avoiding the ascent and descent of 800 feet over which the old road was taken. In short, while everything tended to prove that the summit of the Ghât would afford a healthy resting place, the practicability of making an easy Ghât at a moderate cost was put beyond a doubt.

When the camps met on the banks of the Periaur the opinion of the Collector of Madura proved to be equally favourable to the project, and not only did all the information collected prove that

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an active commerce would follow the opening of the road, but it was apparent that large tracts of land suited to the Coffee planter would be opened out, and noble forests of teak be made accessible. In short, it was resolved that the construction of a pass should be recommended to the Governments of Madras and Travancore. About two years have since passed and in that time considerable progress has been made. A road from Cottyam to Canjerapulli has been completed, and a Ghât line has been successfully traced and is already in use for bullock traffic. It is being widened into a cart road of 18 feet, and the twelve miles of ascent will be completed to this breadth at a cost of £150 per mile. Already four Coffee estates have been opened, and numerous applications for land have been made. In an experimental garden established by the Rajah English fruit trees and flowering shrubs are growing luxuriantly; potatoes of good flavour have been gathered in; the tea plant and the chinchona are thriving well; and above all the climate at all seasons of the year has proved healthy.

Under these favourable auspices has been founded the little settlement of Maryville, and from this nucleus, it is to be hoped, that the blessings of a pure and holy faith, and of the civilization which it engenders will spread to the surrounding country, and satisfy the longings of many poor tribes who like the Arrians hear now and then tidings of a God with attributes far different from those of the devils, whom they have long feared and worshipped, and of a religion which has the promise of the life that now is as well as of that which is to come. The little church which Mr. Baker built in a dense jungle, now stands by the side of a wide road along which commerce with its attendant evils and its countervailing blessings will soon pass busily by. We may sometimes feel almost appalled at the prospect of the evils, which a commerce with almost savage races brings with it, but a hopeful faith rests on the command of God that man should replenish the earth, and we may be assured that to use every effort to advance the intercourse of man with man, and to draw from God's earth the bounties which it holds, is to fulfil His will and to aid in dispelling the gross gloom which lurks in the dark places of superstition.*

* It happened to the writer of these pages to be on duty at Sedashagar at the time when the proposal of forming there a commercial emporium was first entertained. He can remember that he thought with many misgivings of the evils which would accompany this measure, when rough English sailors would break in on the peace and tranquillity of the then secluded villages surrounding the beautiful cove and occupying the fertile valley of the river,

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We thus bring to a close a slight and imperfect sketch of the Southern Ghâts and their passes. To sum up what has been said the whole line from the Goa frontier to the Arambooli gate may be divided as follows:—*North Canara*, a length of 80 miles, having six passes, two converging on Sedashagar, three on Compta and one branching to both of those parts. *South Canara*, including parts of Coorg 75 miles in length having six passes: one leading to the port of Cundapore and five converging on Mangalore. *Malabar* extending from South Canara to the Railway, having a length of 175 miles in which is one Ghât from Coorg leading to Tellicherry, with two steep paths to the Neelgherries. *Cochin* and *Travancore* extending from the Railway to Cape Comorin having a length of 175 miles through which the new Maryville Ghât is the only pass. Thus in the line of 500 miles, fourteen passes of varying degrees of completeness surmount the chain of the Ghâts and render their lands accessible.

To form, then, some estimate of the resources of this tract of country and to show how important a bearing it may have on the future of the Indian Empire, and the solution of the great problem of the tenure of India by the Anglo-Saxon and the Oriental race in common, it is a most important fact that not one of these passes has been constructed without opening out extensive tracts of land adapted to the English settler. With the exception of North Canara the head of every Ghât is already a small settlement of English planters. Ootacamund and Waynáad are now English colonies, and throughout the line of Ghâts, which be it remembered is longer from North to South than England and Scotland, there is a vast area capable of cultivation, with frequent plateaux interspersed, which boast a temperate and salubrious climate. To afford some idea of this area we have endeavoured to place the reader at different portions of the chain, separated by wide intervals. But, perhaps, the following incident will best convey the impression we desire to give. An experienced Coffee planter of Ceylon visited the newly formed

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and was almost inclined to doubt whether all the evils of a crowded city and a port did not more than compensate for the advantages which it was proposed to confer. But a circumstance occurred which gave him a striking lesson. One of the most secluded and fertile villages was possessed by two rival branches of a Hindoo family and long years of strife and animosities were brought to a termination by the foul and cowardly murder of one of the contending heads of the family as he returned late in the evening from the Collector's tent. A proof that although seclusion from the more busy marts and open competition of the world may cut a people off from the general march of improvement it cannot shut out, while perhaps it nourishes, the evil passions which spring up spontaneously in the human heart.

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station of Maryville, and was so pleased with its capabilities that he made application for some tracts estimated to contain several thousand acres. But he was advised to visit another spot which had been lately opened. This was the next clearance to the north. It was visited and the preference given to its forests and the former application cancelled. The distance between the two was eighty miles of unexplored mountain forest running parallel with the sea, through which the Periaur, the river above described, forces its way, and the intervening tract is as likely to contain first rate forest land as either of the spots to which attention happened to have been directed. We have given above an extract from Sir Charles Trevelyan's Minute on the Palni Hills. The following passage occurs in a letter received while this paper was in hand from a range of the Anamullay group. Our correspondent writes—'We have huts and tents in a 'most lovely spot at an elevation of 6000 feet above the sea at 'the mouth of a large valley which I first discovered some ten 'years ago, and which has been named after me. It is delight- 'fully cold, frost in the early morning, and a roaring fire in the hut 'after dinner, round which we smoke our cigars. There is abun 'dance of game about, principally ibex, a sort of chamois, and 'we live almost entirely on game. Bison and elk are pretty 'numerous too. I have but half explored the range of hills yet, 'but I find they are very extensive and the same height as the 'Neelgherries. I was on a peak the other day which I ascertain- 'ed by the Barometer to be upwards of 8000 feet high. The 'climate is delightful and the scenery and flowers most beautiful. 'No doubt some day these hills will be as thickly colonized as 'the Neelgherries.'

Again; in the mountain range opposite Mangalore rises the peak of the Cooderi Mookh or Horse's face, on the summit of which at an elevation of six thousand feet a small settlement was formed by the unaided enterprize of a few private persons resident at Mangalore, who built a club house on the summit and opened a bridle path of eleven miles up the mountain. This peak may be reached either from the south by Bellatungaday, or from the north by a native track from Karkul. Both lines as they ascend the mountain pass through rich Coffee lands, and the climate on the higher elevation is perfect. The peak rises to a height of 6,020 feet, but at a lower level of four thousand feet an extensive table land affords many favourable sites for plantations.

Many other spots can be named and many more remain as yet unexplored. But enough, we trust, has been said to prove that there is in the Southern Ghâts a wide field for English enterprize.

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The subject we consider to be one of great interest with reference to the future of India, for not only does the settlement of the English in the mountains give strength to our Government, but it leads to the rapid extension of cultivation in the plains below. The wages earned on the Coffee estates (and there is employment there for man, woman and child) swell the agricultural stock of the Ryet, whose object is to accumulate enough to enable him to take up a piece of land below. And in proportion as the mountains of Madras are made available the tide of emigration of her yet scanty population will be stayed and the large area of land still uncultivated throughout her wide districts will be brought under the plough.

To aid in this desirable result some action on the part of Government is both necessary and legitimate. The passes which we have described in this article, being only 14 in a line of 500 miles, are on an overage more than 40 miles asunder. Where the table-land of Mysore is ready to pour its produce to the coast and the people are dependent on the coast for their salt, a pass every 15 miles will immediately repay its cost. Farther south there is not a trade ready to use the roads, but there the Government should establish at suitable intervals plantations of chinchona under intelligent superintendents and make them accessible by bridle paths on correct inclines. The first start which the settler requires being made, every plantation will become the nucleus of a settlement calculated to rise as rapidly as Waynáad, and to contribute as largely to the wealth of the country.

There are many other subjects of deep interest connected with the Ghât mountains. Their vegetable and animal resources, their varying tribes, the mysterious relics of ancient races, their field sports, all claim attention, but we have already trespassed long on the reader's patience, and must confine ourselves in this article to the subject which we proposed namely the history of the mountain passes and their influence upon commerce up to the present time. At some future period, when the Coffee trade has received a large development; when extensive tea plantations yield a wholesome beverage to the population of India, and supply a portion of the market of Europe; when the Quinine of the Ghâts is allaying the suffering of thousands; when the settlements of the Ghâts and their Lawrence Asylums yield their contributions of hardy recruits to man the fortifications of the city of Sedashagar; these few notes of early progress may not be without interest.

A French writer has said—'Un nouveau chemin, un chemin 'amélioré, est toujours un bienfait. Parmi les créations du génie ou 'de l'activité humaine, il en est peu de qui l'on puisse dire, comme

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'des voies de communication, qu'elles ne peuvent jamais être un 'mal.'* We cannot quite adopt this sentiment, for we believe that every road is a channel for that mixture of good and evil which God has appointed for our trial on this earth; but it savours of the cheerful spirit of the road-maker; and we can say from experience that when the time comes that the more active period of life is looked back upon as a thing of the past, few recollections will give more unalloyed satisfaction than will be derived from any share taken in those works by which the produce of the earth is increased and the burden to be borne by our fellow men is lightened. 'Whatever spares the body's toil 'emancipates the mind,' and whatever aids the intercourse of man with his fellow man advances the spread of truth. The mountain path is but the first step in civilization but it is the most important; when once the line of communication is established the progress of improvement is sure. We have sometimes looked at the motionless wires which stretch from our metropolis, and thought how strange it was that although we heard no sound, and saw no winged words, still some message of deepest import, unseen and unread by us, might be passing in mysterious influence along the line even while we gazed. And so, we have thought, when commerce has once stretched her lines, though the ignorant may not know it, and the selfish may not heed it, along that line a message is passing which bids the barbarous to be civilized and the enslaved to be free.

We have only to add with reference to the publications which we have named at the head of this article that they afford specimens of the valuable mass of information which the Parliamentary papers place at a very moderate cost within the reach of all. The papers on chinchona would be particularly valuable were they not superseded by Mr. Markham's separate publication of his travels, which deserve a longer notice than can be allotted to them in this place.

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* Manuel et code des Routes par Stephane Flachat-Mony.

STATEMENT shewing the value of the Import and Export Trade of North Canara during the last ten years.

Fuslies.	VALUE OF GOODS IMPORTED.									VALUE OF GOODS EXPORTED.																	
	On payment of Duty.			Free of Duty.			Total Value.			Cotton.									Value of other goods exported free of duty.			Value of goods exported on payment of duty.			Total value of goods exported.		
										Quantity.			Value.			Average value per Indian.											
1	2			3			4			5			6			7			8			9			10		
1261	8073	9	1	428857	6	7	436930	15	8	242828	33	40	1816699	10	8	7	7	0	1239721	10	10	11421	11	5	3067843	0	11
1262	23545	7	8	508127	14	7	531673	6	3	469370	10	20	4098970	10	11	8	11	0	1192710	5	1	13279	13	6	5304960	13	6
1263	16297	13	1	556068	0	2	572365	13	3	201634	14	40	1732780	2	4	8	9	0	2014479	8	5	16700	1	1	3764159	11	10
1264	60359	4	7	744843	11	8	805203	0	3	160691	6	20	1299702	7	1	8	1	0	1737538	7	11	75279	14	8	3112520	13	8
1265	46821	7	8	874208	14	9	921030	6	5	185032	16	0	1678571	1	0	9	1	0	2261735	15	11	304219	14	11	4244526	15	10
1266	57133	1	2	1045953	13	6	1103086	14	8	356212	25	40	3915840	6	8	11	0	0	2126696	0	11	369548	4	8	6411994	12	3
1267	41084	13	9	1116246	2	11	1157331	0	8	397773	28	40	5753902	0	0	14	7	0	2082327	15	11	476496	9	4	8312726	9	3
1268	39748	14	10	1471232	1	7	1510981	0	5	226914	38	0	3168023	3	0	14	0	0	2096669	9	8	404181	7	0	5668874	3	8
1269	21958	5	11	1516123	15	7	1538082	5	6	408618	12	0	4993976	12	0	12	3	0	2658800	3	5	482002	12	11	8134779	12	4
1270	55769	13	2	2101581	11	9	2157351	8	11	625499	17	0	7498550	5	0	12	0	0	2383783	8	8	367650	9	5	10249984	7	1

STATEMENT shewing the annual collections of Revenue during the last twenty years in the District of North Canara.

Fus-hes.	Land Revenue.			Kumeri.			Huckle.			Montunpha.			Forest Revenue			Extra Revenue			Salt Revenue.			Abkari.			Ferries.			Small Farms.		
1251	789749	4	11	5767	1	9	.....	...	...	6473	1	10	4	3	7	722	0	1	140483	3	7	22175	8	0	1435	8	0	4393	0	0
1252	793623	1	13	4646	10	1	.....	...	...	6415	10	7	242	1	8	875	14	10	151208	8	0	22936	0	0	1248	12	0	5937	14	9
1253	797587	13	11	4677	2	10	.....	...	..	8034	15	1	154	6	8	1002	11	5	148681	14	3	24773	0	0	1268	8	0	5393	8	5
1254	801636	6	0	5136	8	10	.....	...	...	7352	10	9	18	10	3	1078	0	6	190744	1	5	28742	0	0	1369	8	0	6312	6	8
1255	804123	12	6	4516	4	1	.....	...	...	7097	15	1	7496	4	1	1107	11	8	210315	7	4	31274	0	0	1352	8	0	6620	11	3
1256	807494	5	7	5687	2	0	.....	...	...	7047	12	9	3602	13	9	1297	8	0	206326	1	6	33939	0	0	1553	12	0	6551	5	3
1257	814585	12	3	6877	8	3	.....	...	...	7413	7	11	3211	13	11	2096	13	1	248351	12	0	31449	0	0	1814	12	0	8054	5	3
1258	821472	0	6	6994	1	0	.....	...	...	7447	4	3	1082	2	9	2455	14	6	208540	10	8	33849	0	0	2224	10	0	8487	9	5
1259	827106	10	7	9181	12	9	.....	...	...	5856	3	0	247	2	0	3447	0	1	219848	2	2	37528	0	0	2081	12	0	9075	7	10
1260	831249	3	0	7325	0	10	2888	3	4	8226	5	6	9829	5	5	4233	1	8	215083	12	3	40111	0	0	3268	8	0	9925	2	8
1261	835009	5	1	10706	15	3	2962	2	2	8269	4	2	29461	2	10	4863	3	4	182604	10	7	43932	0	0	3859	12	0	12466	11	6
1262	838116	5	9	9221	9	5	2868	9	6	8471	10	5	8830	4	9	4773	5	9	203186	1	9	34065	0	0	4024	0	0	12598	2	3
1263	838685	7	3	10493	14	7	2746	7	0	8386	5	0	52992	2	4	5141	2	0	195485	11	3	35565	0	0	4938	8	0	18819	14	9
1264	844295	1	4	11824	13	6	3123	5	5	8095	5	0	47807	9	6	5402	11	3	127484	5	9	42890	0	0	5130	8	0	5430	5	0
1265	847643	0	6	16488	11	9	3718	14	2	7849	14	9	147689	7	4	5181	1	5	155383	1	2	52896	10	6	4371	0	0	6917	8	7
1266	850924	6	5	9772	7	8	3690	2	3	7631	10	6	118774	8	7	4574	4	8	212674	15	7	48443	12	10	4519	0	0	5589	0	7
1267	856420	9	0	7280	4	9	3930	7	2	7554	5	9	115781	5	5	5363	13	7	215591	10	0	48443	12	10	6079	0	0	6736	3	5
1268	860955	12	1	7476	11	6	4426	11	1	8095	9	11	100300	9	10	6024	12	4	258463	2	6	48443	12	10	5736	11	10	6557	5	8
1269	867179	13	5	8413	9	4	4951	3	6	8173	6	8	200374	3	7	6575	5	1	318632	9	3	48443	12	9	5963	0	0	6837	15	8
1270	870073	10	5	10088	12	1	5244	12	2	7891	6	9	252999	8	5	9448	10	11	311516	9	2	48443	12	9	6213	0	0	9717	15	10

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ART VI.—1. *Mr. Cust's proposed Tenant Code.*

2. *Settlement Reports of various Districts in the North West and the Punjab.*

3. *Act X. of* 1859.

IF we admit the Benthamite doctrine 'that the thing to be 'attained is the greatest good of the greatest number,' we shall not be far from subscribing to the further axiom, that the more the country can be made to produce, the better is it for its inhabitants. But if over and above this, we should contrive to make this increased production coeval with the employment of a lesser quantity of manual labor upon this land, it is scarcely too much to claim a great advance upon the present state of affairs. For by so doing not only should we increase the quantity of food in the country, and consequently the greater comfort of the people, but by liberating a large amount of labor hitherto wasted enable it to be turned into new and profitable channels, thus increasing the aggregate wealth and, as a consequence, the general sum of happiness among the people. These are propositions that scarcely any one would care to confute in these days, unless it be a philosopher after the manner of Mr. Ruskin. But, these premises being granted, the question naturally arises how is this to be done? To which we answer that we must bring about a marriage between capital and land, and to offer some suggestions for the removal of obstructions to this union, which has a natural tendency to consummate itself, is the object of this paper.

When the great revenue officers of the North West, in the course of their investigations into the tenures there prevailing, discovered the existence and constitution of the village communities they were naturally very proud of it. They found these "little republics" flourishing after an existence of centuries, notwithstanding the successive waves of conquest that had passed over the land. They found the people strongly attached to them; and it was the fashion then to decry the settlement of Bengal by Lord Cornwallis. So they, with a pardonable partiality, looked no further and pronounced that these village communities were the real foundation of agricultural happiness, and were thoroughly suited to the people of this country, among whom they considered them a peculiar institution. But what

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they did not see was, that this village community, with its rules and usages, is nothing but the development at which society arrives at a certain stage of civilization and progress; that India has stopped there, while other countries have in their onward course dropped these institutions to take up others better fitted to a more advanced stage of development; and that the change has been gradually worked out by the necessities of mankind as the occasion arose. If then this can be shown, it follows surely that our legislation, while securing positive rights, should yet leave the door open to allow natural causes to work their own effects, and as the times changed and the habits and ideas of the people advanced, so should capital find no difficulty thrown in the way of its free alliance with land, whenever it found its interest point that way.

But before proceeding to show how in our opinion legislation has thrown difficulties in the way of the application of capital to land, and how the present law is still more to be feared in its effects for the future, we would first say a little upon the subject of the coparcenary community being but the peculiar social development of what, in western Europe, is considered a very remote and, comparatively speaking, imperfect stage of civilization. For while we hold it to have been eminently adapted to a rude age when the people were spreading on all sides when there was a spirit of enterprise among them, and plenty of new land to be taken up; we at the same time are of opinion that when society becomes settled and populous, when it ceases to expand by conquest and settlement, when good government secures to each man peace and the enjoyment of his own, then will families increase and multiply, and the individual holdings divide and subdivide, until the 'sturdy republic' has become nothing but a pauper multitude, never improving, and having its numbers regulated by the point of starvation only. That there are indications abroad, that the time has come for removing every scrap of legislation tending unnaturally to foster the existence of this state of affairs is, we think, only too apparent.

Mr. Maine, in his admirable work on Ancient Law, says—
'Our studies in the law of persons seem to show us the family
'expanding into the agnatic group of kinsmen, then the agnatic
'group dissolving into separate households; lastly the house-
'hold supplanted by the individual; and it is now suggested
'that each step in the change corresponds to an analogous alter-
'ation in the nature of ownership.' * This process he declares to

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* Ancient Law, p. 270.

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be observable among all the races of Indo-European blood. If nations then have practically worked out this revolution in the course of their gradual development from a state of barbarism to that of civilization; if the change has been accompanied by an increase of members, wealth and happiness such as the experience of the whole civilized world proves, it can scarcely be considered unworthy the attention of a government, anxious to develop the resources of this country, and to mould its wonderful natural capabilities, so that it may supply the crying wants of other countries, while at the same time it spreads plenty and happiness over the land with which the government is more immediately concerned. Mr. Maine continues—'As the con-
'tracts and conveyances known to Ancient Law are contracts and
'conveyances to which, not single individuals, but organized
'companies of men are parties, they are in the highest degree
'ceremonious; they require a variety of symbolical acts and
'words intended to impress the business on the memory of all
'who take part in it; and they demand the presence of an in-
'ordinate number of witnesses. From these peculiarities, and
'others allied to them, springs the universally unmalleable
'character of the ancient forms of property. Sometimes the
'patrimony of the family is absolutely inalienable, as was the
'case with the Sclavonians, and still oftener though alienations
'may not be entirely illgetimate, they are virtually impracti-
'cable as among most of the Germanic tribes, from the necessity
'of having the consent of a large number of persons to the
'transfer. Where these impediments do not exist, or can be
'surmounted, the act of conveyance itself is generally burdened
'with a perfect load of ceremony, in which not one iota can be
'safely neglected. Ancient Law uniformly refuses to dispense
'with a single gesture, however grotesque; with a single syllable,
'however its meaning may have been forgotten; with a single
'witness, however superfluous his testimony. The entire solem-
'nities must be scrupulously completed by persons legally en-
'titled to take part in it, or else the conveyance is null, and the
'seller is re-established in the rights of which he had vainly
'attempted to divest himself.

'These various obstacles to the free circulation of the objects
'of use and enjoyment begin, of course, to make themselves
'felt as soon as society has acquired even a slight degree of
'activity, and the expedients by which advancing communities
'endeavour to overcome them form the staple of the history of
'property.'

The case could hardly be put more clearly, and we contend that while moveable property is in this country freed from the

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obstacles thus described, the transfer of real property is still saddled with many of them, and their removal, so far as legislation may justly effect it, can safely be laid down as the condition necessary that land may attract capital. The more prominent of these obstacles are the coparcenary right of pre-emption; the recording the peculiar customs of each village in the settlement administration paper, with a view to settle all questions regarding real property arising within the community by its provisions, and thus indefinitely prolong the existing state of things; and the concession of rights of occupancy to cultivators.

Coparcenary property in itself is a great drawback to its transfer; and indeed, when we consider that an estate held in shares, the land of which is not divided, must first be divided before a man can sell his share, and that afterwards the right of pre-emption pertains to the shareholders, there is at once a most formidable obstacle raised. The nature of the shares in some estates held in common renders division almost impossible. We have seen a statement of shares in which fractions were used to express them smaller than the eight millionth part of a rupee, and the profits which the rupee represented altogether amounted only to Rs. 1,000 annually. Absurd as this sounds it is a fact and can be verified by the records of the settlement now under progress in Oudh.* Now, capital is a skittish thing, and it commands great interest in this country; and though the excellent security which land gives is a great attraction, still if such difficulties are thrown in the way of its transfer capital will not come forward. The ordinary partition of an estate is a very troublesome process; and, though the legislature has wisely ordered that any coparcener who wishes to separate his portion can have it done, and thus establish his right over an actual piece of land, yet the division is necessarily entrusted to the fiscal officers, and they have a reluctance to enter on the process, both on account of the trouble it gives in itself, and of that which it entails as a consequence by multiplying the Revenue accounts. Moreover government discourages absolute partition 'as imperfect partition keeps the community 'together and preserves to them the right of pre-emption.' † But without sacrificing individual rights, which must be kept sacred, it appears to us that small properties can only become large ones by affording facilities for the transfer of land. And there can be no doubt that a piece of land, belonging to a single

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* Settlement of Hurchandpoor, Roy Barielly district.
† Paras 169-170 Dir. to. Collrs. Oudh Rev. Cir. 176 of 1859.

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man, free to do as he likes, is an infinitely more transferable property than where the same land has to undergo a troublesome process in the first instance, and is clogged with a right of pre-emption in the second, not to talk of the difficulty of getting an influential officer to perform the partition he is brought up and instructed to think undesirable.

If, then, the foregoing argument be true, and if, as we believe, capital will only be attracted to land when it is held in considerable estates by single individuals, it follows that partitions should be encouraged with the avowed object of breaking up these coparcenary communities. It is true that to maintain them has been the object of many years' legislation, but we claim to have received a new light on this subject, to see that they are the relics of a former stage of society fast passing away, and that, as this country becomes unlocked to the outer world and learns that foreign markets reward successful industry, it will call for its own emancipation. We think, however, that our position here should make us lead the way, as we have both the power and the knowledge, and can hardly go wrong where we have the experience of the whole world before us. The North-West reverence for the village community is a hobby to which everything has been made to bend. It was a grand discovery when it was made, and many rights were secured in consequence of it. But it is one thing to respect what we find existing, and another thing to perpetuate it for ever. Unborn generations have no rights at our hands, or, if they have any, it is that we should leave the country to them in the best condition that we can, and that is not to be done by perpetuating for their benefit the traditions, laws, and customs of the past only.

We do not here propose to discuss the right of a proprietor to sell his land as against his family or any one else. That question has been decided by Government in the case of Talookdars in Oudh, whose powers over their estates have been declared absolute,* Hindoo law to the contrary notwithstanding; and there can be little doubt that ere long this will take the shape of a legislative enactment. What is law for one must become law for all, and indeed has already become so, for it is authoritatively declared in the rules for the Oudh settlement that 'parties holding an intermediate interest between the Talookdar and the Ryot have as unlimited a control over their property as the Talookdar enjoys over his.'† But here the right of pre-emption comes in. The Punjab Civil Code, which also prevails in Oudh,

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* Oudh Rev. Cir. No. 154 of 1860.
† Oudh Settl. Cir. No. 48 of 1863.

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declares 'the right of pre-emption to exist in communities of 'landholders however constituted, under whatever tenure the 'estate may be held.'* It does not appear that this is a maxim of Hindoo law where coparcenary communities have the land divided among them. Macnaughten's Principles rather affirm the contrary. But it is Mahommedan law and appears to have been the practice of the Semitic races, as we have a notable example of it as old as the Book of Ruth. But Macnaughten says there are many legal devices for defeating this right; among them 'the seller may agree with the purchaser for an exhorbitant 'nominal price, and afterwards commute the price for something 'of inferior value; when, if a claimant by pre-emption appear, 'he must pay the price first stipulated without reference to the 'subsequent commutation.'† A device of this sort is a clear invention of lawyers to get rid of a right which they found was disadvantageous, as of course it is not competent to any Mahomedan to advocate a change in the text of the Koran. We may take the fact as evidence of a desire to abolish the law. Actual practice moreover is on the side we advocate. Among native landholders under a native state, sales are almost unknown, but mortgage giving full usufructory possession to the mortgagee is very common, and by means of it strangers are introduced into coparcenary villages every day. But the right is in the statute book, and it cannot be doubted that men will rather seek other investments than land for their money, when, after taking all the necessary trouble to satisfy themselves of the value of the property and its suitability, they are liable to have it taken from them by any one of the brotherhood who wishes to buy it at the price. We think, therefore, that we have shown that the abolition of the right of pre-emption is justifiable; and, considering that legislation has already recognized the sacredness of individual rights in property, by giving any coparcener the right to claim partition of his share, and by giving Talookdars the right to dispose of their property by gift, sale, or bequest as they please, we may safely say there are precedents for it. And we advocate the policy of the abolition of the right of pre-emption, because it is not desirable to bolster up these communities, but rather to enable individuals to do with their own what they like.

There is one other subject in connection with this we should like to notice. In Oudh, though the sale of land is not absolutely prohibited in execution of a decree of the Civil Court,

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* See also Act I. of 1841 and Act XXIII. of 1861.

† Macnaughten's Principles of Mahommedan Law Chap. iv. para 13.

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great discouragement is given to it. Acquired real property cannot be sold except with the consent of the Commissioner, and ancestral property without the consent of the Judicial Commissioner. We are however of opinion that the procedure described in Sections 243 and 244 of Act VIII. of 1859 is ample security against hasty and improper sales, and the present Oudh practice has merely the effect of making the transfer difficult; no officer can absolutely refuse execution of a decree of court, if no other means than the sale of the debtor's landed property can be shown by which the decree is to be satisfied, and the procedure above quoted amply provides for this contingency. The only result of the present Oudh rule is to give all parties concerned an immense deal of trouble, and materially to lessen the value of the property, when lengthened delay proceeds from unreasoning opposition. The succession of an estate entire is secured by a law of primogeniture, and certainly in an economic point of view it is not the interest of Government to bolster up bankrupt families; no capital can flow on to their lands. We are aware that it will be answered that this question has a political aspect, but we confess we cannot see that this should have any weight. The present law amply protects landholders if they will only act reasonably and live within their means, and, though a wholesale turning out of ancient proprietors, as was done in Oudh in 1856, may outrage public feeling, more especially when there is no reason for it but the crotchets of the ruler, we have yet to learn that a tenantry like to be screwed and rack-rented to minister to the necessities of a needy bankrupt, and that the general feeling of the country hedges these parties with any such reverence as should make Government turn aside the even current of justice in their favor.

The compilation of the administration paper is detailed in para: 167 of the Directions to Settlement Officers, while the principles upon which it is prepared will be found in paras: 146 to 149. Those principles are that every peculiarity and every custom in the village is to be noted and recorded. The North West system always proceeds on the supposition that the villagers engage for the Government Revenue, and what is laid down for the payments of sharers to the headman in the Directions must be understood in such a settlement as that of Oudh to apply to the payments of rent by under proprietors to the Talookdar. Now it is stated that 'what is matter of distinct engagement should 'be clearly distinguished from what is merely a record of rates 'and payments, as at the time existing. The latter should be 'recorded thus—The payment found to be at this time for—is—; 'but this sum remains open to further arrangement according'

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'to law.'* But what is this? It is explained that 'Ryots 'having rights of occupancy, but not at fixed rates, are to 'have a *patta* at fair and equitable rates.'† That the Collector, may be guided in his enquiries to determine what that is, the administration paper is drawn up, and not for that only. It is intended to show him the rules and customs that prevail, so that where any alteration in the value of the land takes place from purely extraneous causes he may take them into consideration, but the customs are fixed, and he must uphold them in all cases which come before him, unless all concerned agree to an alteration, a contingency that is simply impossible. The effect of an administration paper may be held to be a perpetuation of the existing state of the affairs in the villages throughout the term of the settlement. As however it is well understood that the present settlements, if on trial they are found good, are to be perpetual, both Sir Charles Trevelyan and Sir Charles Wood having publicly so declared, it follows that the paper perpetuates the present state for ever. If we go back again to the native practice we find no such paper in existence. True, they followed the same customs from father to son, for their condition was stationary, but they never so bound themselves, still less did they draw up a document which enabled one of a community to resist a change for the general good. Their progress was *nil*, and they did not find occasion in later times to alter their customs. But have we given up hope of progress? Are we prepared to stereotype anything we find existing here? If we are not we must not bind ourselves to make the customs of each separate parcel of land an authoritative guide for the judicial decisions that may be necessary within it. Let us see how it works. It is well known that the collection of rent by a division of the produce of the soil is common in many parts of the country. Probably this originated in a scarcity of coined money, but like every thing else in this country it has an inveterate tendency to grow into a custom. As such of course it would be recorded in the administration paper, and the rate whether a half or a third, as the case may be, would be recorded also. But if improvement is looked for, proportional produce rents must be done away with. This system is well known both in France and Italy, where it is called 'metayer.' Speaking of Lombardy Mr. Young, who travelled there about a century ago, says—'If the intelligence with respect to the produce of wheat be

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* Instructions of Sudder Board regarding settlement of Scharunpoor, Se . XXXIII.

† Act X of 1859, Sec. 5.

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'reviewed, it will be found at an average varying from five to 'seven and a half times the seed, generally between five and six: 'suppose the latter number, and we shall, with reason, be 'amazed at the miserable products of this rich plain in every-'thing except grass and silk. The average soil of England 'cannot be compared with the average soil of Lombardy, yet our 'mean produce is eleven times the seed perhaps twelve. Every 'one must be curious to know the causes of such wretched 'crops. I attribute them to various circumstances; but the 'predominant cause must be sought for in the small farms, occu-'pied either by little peasant proprietors or what is more general 'by metayers. This abominable system of letting land is the 'origin of most of the evils found in agriculture, wherever the 'method prevails. Such poor farmers, who, in every part of 'Italy, where I have been, are so miserable that they are forced 'to borrow of the landlord even the bread they eat before the 'harvest comes round, are utterly unable to perform any opera-'tion of their culture with the vigor of a substantial tenantry. 'This evil pervades everything in a farm; it diffuses itself, im-'perceptibly to a common eye, into circumstances where none 'would seek it. There are but few districts where lands are let 'to the occupying tenant at a money rent, but wherever it is found, 'there crops are greater,—a clear proof of the imbecility of the 'metaying system. Yet there are politicians, if they deserve the 'name, everywhere to be found, who are violent against chang-'ing these metayers for farmers; an apparent depopulation is 'said to take place, and the same stupid arguments are heard, that 'we have been pestered with in England, against the union of 'farms. Men reason against the improvement of their lands, 'which is the natural progress of wealth and prosperity, and are 'so grossly absurd as to think that doubling the produce of a 'country will deprive it of its people.'* We could easily multiply authorities on this subject. 'Previously to the French revolu-'tion about seven eighths of France was occupied by metayers, 'paying generally half, and hardly ever less than a third part of 'the produce to the landlord. In England it is not supposed 'that the rent of the land amounts to more than from a fifth to 'a fourth part of the produce. What, then, must be the effect 'of subjecting the occupiers of France, where rent is naturally 'lower than in England to so excessive a demand as a half or 'even a third part of the produce. Nor is this system less in-'jurious to the proprietor than to the cultivator. The landlord 'gets, indeed, a large proportion of the produce raised upon his

* Young's Travels in France, 2nd Ed. Vol. 2, page 216.

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'estate; but owing to the degraded condition of agriculture, 'and the wretchedness of the occupiers, caused by the exorbitancy 'of the demand upon them, the produce is comparatively tri- 'fling; so that the half which belongs to the landlord under 'this system is not nearly so large as the share falling to him 'would be were the rents moderate and fixed and the tenants 'allowed to reap all the advantage of whatever skill and talent 'they might exert.'* But probably no one would dispute the disadvantage of rents in kind proportional to the produce, though there will be plenty of stout defenders for the retention of a paper among the settlement records which directly tends to perpetuate it. The principle involved is a plain one. We cannot expect to improve in the future if we bind ourselves down to the customs of the past, our true policy is always to leave the door open, and then the customs will be modified from time to time as occasion may arise.

But except to be a guide for the decision of questions arising in the village, it is difficult to say what is the use of the administration paper, unless it be to hold the community together. But we have shown how in the case of its happening to record proportional produce rents for a custom, it perpetuates what is undesirable, and the whole drift of our argument is that separate and not common property is the condition of national prosperity. It may be said, perhaps, that the case of proportional rents is a special one, but to a greater or less degree the same argument applies to every entry in the administration paper. For instance, it is ruled under a system of fixing fair rents that if a tenant builds and digs a well his rent shall not be raised on that account. Such would be entered in the administration paper; but a landlord, who understood his own interest, would forbid the tenant to make the well, his argument being, 'I know that 'the increase of produce will be greatly in excess of the interest 'on the outlay, and I will either borrow the money on the strength 'of the increased rent, or I will wait till I am in funds. Besides, 'I do not like that this fellow should establish any kind of pro- 'prietory right in my lands.' Were there no custom recorded, the business would have become one of mutual engagement between landlord and tenant: the latter would protect himself by a lease for a sufficient number of years to repay him amply for the outlay; and the former, looking to the future, would gladly consent to the tenant's present improvement of the estate. The country generally would be benefitted by the amount of the increased produce. That the administration paper is regarded

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*. McCulloch's Treatises and Essays on Economical Policy, page 177.

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as the Revenue law of the village may be shown by the following: 'It would be far better that the administration paper 'were not drawn up at all, than that its provisions should be 'called in question whenever appearance may justify the dissent, 'or that its conditions should be cancelled, whenever they may 'happen to be opposed to the opinion of any officer, whether 'Commissioner or other, who may choose to doubt their justice 'or expediency. I consider that the preparation of the administration paper should receive much more attention than is 'usually bestowed upon it, that it should express the opinions of 'the proprietors themselves, and that its conditions, when not 'contrary to the law, should be enforced.'* The foregoing extract is from a letter of Mr. Edmonstone, late Lieutenant Governor N. W. P. when he was Financial Commissioner in the Punjab. Now, not only is a paper of this description open to the objection of perpetuating a state of things quite unsuitable to a condition of healthy national progress, but it also creates a law of real property for each separate village, wherever the legislature has not stepped in and made a law on that special point. Had the paper been prepared only for the purpose of collecting information on which eventually to found a general code of agrarian law, it would be most useful, and satisfy all the requirements of the inductive process so far as regards the present state of things. But a wise legislature looks to the future in circumstances such as those of the English rule in India: and, even where legislation is somewhat behind the general public feeling, as is the case in England, nothing is ever done which posterity may not undo without breaking faith. Here, however, with our imperfect knowledge of the people, we introduce a paper, which professes to emanate from themselves, but which, it is well known, always bears the stamp of the Settlement Department's opinion upon it.

In the Punjab, for instance, these documents of course contain the status of the hereditary cultivator, though the concurrent testimony of all the settlement officers of that province is that this status is of our own creation. And, when we have introduced the paper we give the sanction of our regular law to a state of affairs which becomes day by day more difficult of amendment. Nothing but the act of the legislature can undo it, and the longer it remains the greater becomes legislative disinclination to meddle. If a man is the recognized proprietor he can settle all the internal economy of the village far more acceptably to the people than we can, and if a village

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* * Papers circulated with Fin. Commissioner Punjab's proposed Tenant Code No. 24 para. 9.

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belongs to a community they can do so either in council or by their headman. Where the law is broken it knows how to assert itself, and those who cannot settle their disputes have always the Civil Court to go to, rent of course being recovered by summary process as at present. Besides, no administration paper ever can provide for all the possible contingencies of even one village, and it is thus open to all the disadvantages of a code without its one great compensating feature of unity. We are of opinion that the less we interfere the more successful will be our government, the line of demarcation being necessity; and than this administration paper it is hard to conceive any greater interference. It compels the people to produce a regulating custom where, we speak advisedly, generally they have none, and it then fixes it for ever.

It is the general and binding nature of the paper we object to. No doubt it is necessary to define how the Government revenue is to be collected from the shareholders by the headman in coparcenary villages, where the land is divided, whether those villages pay direct to Government or pay a fixed rent to a large landholder; but we cannot see that more is necessary, and everything else should be left to be settled by the parties concerned. In a village owned by one man he is the natural arbitrator among the inhabitants, and that his decision should rule in all their concerns, where rights recognized by law are not involved, would appear to be but the legitimate authority attached to property. In a coparcenary village, in which the lands are divided, if the settlement record defined the mode in which the Government revenue or the Talookdar's rent was to be paid through the headman, and the remuneration he was to have for his trouble, it appears to us that in all other matters he is but the representative of the majority, and in case of dispute their votes would be taken; and, if necessary, they can always be taken on any given point by a Government officer without difficulty. Looked at fairly and dispassionately, without any prejudice as to its necessity arising from our revenue education, it must be admitted that this paper is an attempt to arrange and settle by authority all possible differences among the villages beforehand; that it imposes an almost impassable barrier to any healthy change; and, as its whole tendency is to restrict a proprietor's absolute property over his own land, it is a formidable obstacle to the attraction of capital. For these reasons, we think, it would be better to restrain the administration paper to those sections which have reference to the mode in which the Government revenue is to be collected from each sharer where the village pays direct, and the

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Talookdar's rent is to be collected when a community pay him a fixed one. In cases where there is only one proprietory right in a village, or where the under-proprietory right consists of individuals holding separate patches of land at fixed rates, we are of opinion that it would be best to omit this paper altogether. Statistical or historical information can be collected without mixing it up with a record of rights, customs, or privileges of any kind.

We now come to the occupancy rights of cultivators. These are of various kinds. 1*st*. The hereditary cultivator at fixed rates. He has throughout been recognized in the North Western Provinces, his holding is at fixed rates for the term of the settlement, and is heritable but not transferable* though 'it is to be 'understood that Government is not opposed to the growth of a 'transferable cultivating title,'† whatever in practice that understanding may mean. This title is also recognized for Bengal, by Act X. of 1839, 'in favour of all those whose rents have 'not been changed from the time of the permanent settlement, 'or who have held for 20 years without change, unless the 'previous change of the rent is proved by the landlord.'‡ It has also been recognized in the Punjab at the settlement of that province, with a somewhat varied basis, but generally the Settlement Officers appear to have made those whom they found to have held the same lands for twelve years at an uniform rate cultivators of this class.

2*nd*. We have cultivators with rights of occupancy at 'fair rates. This title is common to Bengal, the North Western Provinces, the Punjab and Oudh. This title is heritable but not transferable. The word fair rates is variously construed. In the North Western Provinces, before Act X. came into operation, it is rather indefinitely described 'as the established rules of the 'pergunna for lands of the same quality and description, due 'consideration being had, as far as may be required by the 'custom of the district, to the alteration of the species of culture, 'and the caste of the cultivator; and again according to the rate 'payable for land of a similar description in the place adjacent 'or at rates not exceeding the highest rates paid for the same 'land in any one year, within the period of the three last antece-'dent years.'§ In Act X. it is declared 'that the rate previous-'ly paid shall be deemed fair and equitable unless the contrary be

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* Directions to Settlement Officers, para 128.
† Ibid.
‡ Sections 3 and 4, Act. X of 1859.
§ Directions to Settlement Officers, para 134.

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'shown.'* We are not aware of the Punjab definition of what are fair rates for this class of cultivators, but in Oudh it has been defined by the highest authority as 'what the land will fetch 'in the market.' It is evident that between the first and the last of these definitions there is a very great difference, and as it is competent to every court, in the absence of authoritative decisions of superior courts, to put its own construction on the language used in the Acts and rules made for its guidance, we are quite safe in assuming that the practice is at least as diversified as the definitions.

These are the only cultivators with occupancy titles. The latter title can be acquired by twelve years' possession on the part of the cultivator.† This rule holds good in Bengal and the North Western Provinces where Act X. is in force, but does not, we believe, hold in the Punjab or in Oudh. The operation of such a rule as this is simple. In the eleventh year of their occupancy all, who were not already within the pale, would be turned out, and the whole body of the tenantry are turned out of house and home, to the great inconvenience of their landlords and their own impoverishment and misery, for the sake of securing a right to one or two who happen, through the ignorance or negligence of their landlords, to complete the twelve years without being ousted, but this part of Act X. has no friend, and it is useless to kick a dead lion. Now let us examine, as far as we can, the grounds upon which these occupancy rights have been recorded. In the North Western Provinces they have been recorded and conceded for many years, they have been upheld by our courts, and have the prescriptive force of established well defined law. These tenures are there an undoubted property, whatever may have been their origin; though we strongly suspect that they had then no sounder foundation than they now have in the adjacent province of Oudh. Of the actual state of affairs in Bengal Proper on the publication of Act X. of 1859 we are hardly in a position to speak; but the occupancy clauses of the Act have been attacked with great vigor, and denounced as a complete agrarian revolution in that province. How far that may be just or not we cannot say, and, considering the excitement that has been born there of the indigo question, it would require an intimate acquaintance with the subject as well as an impartial judgment to be able to pronounce upon the point. But we have a good deal of evidence as to the state of the Punjab before the settlement, and it is uniformly to the purport that no such thing as right of occupancy was known under the

* Section 5 Act. X of 1859.
† Section 6 Act. X. of 1859.

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Sikh rule. The present Financial Commissioner says—'Tenant 'with right of occupancy is also called hereditary cultivator. 'The features of this status, which has been created by our sys- 'tem are etc.'* Another Punjab officer says—'During the mea- 'surements I was requested to define the difference between 'hereditary tenants and tenants at will. I made enquiries of 'the Tehseeldars of the Umritsur district, all of whom are Pun- 'jabee officials of experience. They replied that the distinction 'between the two classes was unknown. Practically, however, 'there was good reason to believe that many tenants did enjoy a 'right of continued occupancy. Accordingly tenants who had 'cultivated their fields for more than twelve years consecutively 'provided they lived in the village were registered as hereditary.'† Again, 'Under Sikh rule the distinction of hereditary cultivation 'was hardly known.'‡ 'We have created the right of hereditary 'occupancy for our own convenience.'§ 'The distinction be- 'tween hereditary and non-hereditary cultivators is a creation of 'our government, Under the native rule in this part of the Pun- 'jab it was altogether unknown. Proprietors had the right to eject 'any tenants whom they disapproved of, however long the latter 'might have resided on the estate.'‖ This officer then goes on to state that notwithstanding this undoubted right on the part of the landlord, instances had come before the settlement courts in which, when the cultivator had been the first to break up the land, he was allowed to sell the right of cultivation. That was however only an incoming tenant paying to save him- self the labor of breaking up new land of which there is abun- dance in Gogaira, and it in no way interfered with the absolute property of the landlord. To give another instance 'The rights 'of the hereditary cultivators have been entirely created under 'our rule. Under the Sikhs the proprietor had always the right 'of ousting a tenant whenever he chose, but this was never 'done unless the cultivator had made himself obnoxious.'¶ In others of the Punjab Settlement Reports we find that there is such an anxiety to get the cultivators that no objections what- ever are raised to any entries that may be made. Thus 'there 'have been very few if any disputes regarding cultivators with 'rights of possession. The fact is, that in consequence of the 'thinness of the population and the scarceness of cultivators,

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* Mr. Cust's Code of Proprietors and Tenants rights, page 5.
† Ibid, page 10.
‡ Mr. Cust's proposed Tenant Code, page 11.
§ Ibid, page 19.
‖ Settlement Report Gogaira District, page 31
¶ Settlement Report Lahore District, page 8.

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'the proprietors have only been too glad to give up to all their 'cultivators the right of possession with the object of inducing 'them to remain on the estate.'*

In other of the Punjab Settlement Reports the rights of hereditary cultivators are only spoken of as rights conceded by us. 'A right of heritable occupancy has been conceded to a large 'proportion of the cultivators. The title is commonly founded 'on a prescription of from twelve to twenty years.'† Or it is asserted that no difference existed under Sikh rule between the payments exacted from proprietors, hereditary cultivators and tenants at will. 'The hereditary cultivators like the proprietors 'pay according to the village rate, both as regards land and 'water. Tenants at will in most cases have also engaged to pay 'according to village rates; but their engagements are subject 'to renewal every year ‡' And again, 'the Sikh ruler took the 'same payment and the same proportion of grain from the 'hereditary proprietor or from the hereditary cultivator as from 'the mere tenant at will, and this, not because his demands 'were so light, but from the fact, that the share of the whole 'produce exacted was so full that it admitted of no distri-'bution according to the measure of their rights'§ Or the settlement Officer simply confines himself to stating what he had to do. 'With regard to the decision of disputes 'about the right to cultivate a few words will suffice. No period 'can be fixed, I believe, as entitling tenants to a permanent 'interest in the cultivation; this question can only be decided 'on viewing the circumstances of each case,' ‖ or in other words the officer could find no custom to guide him and was obliged to consider what was fair in order to create the right which the authorities had determined to record. In Oudh there are as yet no published reports from which we can quote on this subject, but we are in a position to affirm that no evidence has been found in that province of a cultivator's right of occupancy. In the words of one of the Settlement Officers there 'rights they had none, but wrongs they had plenty.' The investigations of the Settlement Officers in this province all tend to the same story, that although in fact men held the same fields from father to son, they had no right therein. Nothing was more common in the days of the kingdom of Oudh

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* Settlement Report Goojranwallah District, page 55.
† Settlement Report Goordaspore District, page 27.
‡ Settlement Report Umritsur District, page 56.
§ Settlement Report Ludhiana District, page 20.
‖ Settlement Report Hoshiarpoor District, page 58.

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than for arbitrators to be assembled for the purpose of adjudicating on claims to landed property, or shares therein, on arrangements for the mortgage or redemption of proprietory right; but we never heard of this local assembly, whose decrees were mostly enforced only by the public opinion of the place, adjudicating between a landowner and his cultivator, where the question was whether the latter was to be ousted or what rent he was to pay. In short, there can be no doubt, that in those native states recently annexed, where enquiries have been made since men began to doubt the absolute infallibility of the North West revenue system, no trace whatever has been found of a right of occupancy, either at fixed or variable rates, pertaining to men who had no proprietory title.

So far, then, for the right of the matter: we now come to discuss its expediency.

All modern political economists concur in accepting Mr. Malthus as the discoverer of the true theory of rent, and his definition of it is, 'That portion of the value of the 'whole produce which remains to the owner of the land, after 'all the outgoings belonging to its cultivation, of whatever 'kind, have been paid, including the profits of the capital 'employed, estimated according to the usual and ordinary rate 'of the profits of agricultural capital at the time being.'* He then proceeds to remark that, 'the causes of the ordinary excess 'of this price of raw produce above the cost of production 'may be said to be three: First and mainly, that quality 'of the soil, by which it can be made to yield a greater quantity 'of the necessaries of life than is required for the maintenance 'of the persons employed upon the land; Secondly, that 'quality peculiar to the necessaries of life, when properly distri-'buted, of creating their own demand, or of raising up a number 'of demanders in proportion to the quantity of necessaries produced; 'and thirdly, the comparative scarcity of fertile land, either 'natural or artificial.' † It is not necessary for us to enter on Mr. Malthus' argument to prove these positions, as they are admitted by the best authorities, and the conclusion they lead to is inevitable. For if the first breaker of the soil becomes its proprietor he would naturally choose the most fertile and the best situated, and from the nature of things as soon as his holding was surrounded by others and supply began to create demand, as is the law of the produce of land, and the scarcity of fertile lands began to be felt, both the fact that better cultivation

* Malthus' Pol. Economy 2nd Ed., page 136.
† Malthus' Pol. Economy 2nd Ed., page 140.

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would be brought to bear upon his land so as to make it yield more, and that inferior lands would be brought into cultivation, as no land can be cultivated unless it supports those engaged upon it, would raise him from cultivator to proprietor and his surplus would be rent. It follows from this that the natural state of an advancing society is to create property in land in the hands of its original cultivators, who then naturally cease to be cultivators and become landlords, for no man will work hard for his bread if he can live without doing so, and as agriculture is the first and oldest of the occupations of civilized man, it is always that in which there is the greatest command of labor. The cultivators of the soil should therefore, by reasoning, be the poorest class of the community, and that they are so in fact there can be no manner of doubt. They are not subject usually, where good systems of agriculture prevail as in England, to the great reverses which fall upon manufacturing laborers, but when circumstances do render them so liable, their utter want of everything makes the visitation far more dreadful, as in the North Western Provinces in 1860. No legislation can alter this. Securing to cultivators occupancy rights certainly has not done so in the North Western Provinces. If a portion of the rent is given by law to the cultivator he will multiply till he brings his holding down to a bare subsistence, or he will be idle and waste his share in bad cultivation. The hereditary cultivators in the North West Provinces are no better off than the tenants at will, either of that or of adjacent provinces. They do not eat better food, they do not present a better physique; and, as they have no benefit and pay less rent, there is a dead loss to the community somewhere. Either they have multiplied until there are too many on the land, and consequently productive labor is wasted by the people not being fully employed; or they do not raise so much produce and the country loses in that way.

The strength of a country is its people so long as they are fed, and the more industrious and fully employed the people are the greater will the country be, and the better off the people themselves. But any thing that binds the people to particular localities prevents that movement in the labor market, which alone seems capable of developing its powers, and the experience alike of the Irish laborer in England and the Indian coolie in the Mauritius and Trinidad shows the difference of the work of those who travel. Why should they not experience the same nearer home? Why should not the eastern Oudh laborer work and save in Trans-Gogra, and the North West man do the same in Central India, but that the occupancy right, which pertains to them, seems some-

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thing in their eyes, and they prefer misery in consequence. Still in arguing this way it must not be forgotten that there is a natural and inborn affection planted in human nature for the soil on which a man and his ancestors have lived and toiled, and it is not easy in even well educated and highly civilized countries, far less in this, to induce the people to do the best for the land and for themselves; so that any improvement would be very gradual, and by no means such as need alarm any body. A few years ago, when the anti-corn law league was in full force at home, we remember a comparison drawn in its organ in which it stated that while good land in the Lothians fetched £5 an acre, better land in the vale of Aylesbury fetched only £2-10. It is however well enough known that the Lothian laborers are not worse of than the Buckinghamshire laborers, while the farmers are far better off. Old custom and a dislike of the unpopularity which it would bring deters the landlord from acting, but in the face of a fact of this sort we can come but to the one conclusion, that the Buckinghamshire farmer raised less produce per acre than the Lothian man, and that the country was so much the loser. Mr. Malthus enumerates as the causes of a rise in rents. '1*st*,—Such an accumulation of capital, compared with the means 'of employing it, as will lower the profits of stock; 2*nd*, 'Such an increase of population as will lower the corn wages of 'labor; 3*rd*, Such agricultural improvements, or such 'increase of exertions as will diminish the number of laborers 'necessary to produce a given effect; and 4*th*, such an increase 'in the price of agricultural produce from increased demand, as, 'while it probably raises the money price of labor, or occasions 'a fall in the value of money, is nevertheless accompanied by a 'diminution either temporary or permanent of the money out-'goings of the farmer, compared with his money returns.'* The above are simply the tokens of a nation's prosperity. Accumulation of capital, increase of population, improved agriculture, and high prices are the effects of progress; and, if they are the inevitable causes of increased rent, increasing rent must be allowed to be a good thing. In opposition to this are the causes of a fall in rents, namely 'diminished capital diminished population, 'an operose system of cultivation, and a falling price of raw pro-'duce from deficiency of demand.'† Or to quote another authority. 'To make farmers leave off those routine practices to which they 'are so apt to be attached,and become really industrious and enter-'prising, they should, besides having the power to improve their

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* Malthus' Pol. Economy, 2nd Ed., page 158.
† Malthus' Pol. Economy, 2nd Ed., page 173.

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'condition, be made to feel, that if they do not make the requisite 'exertions they will certainly be ruined. To satisfy ourselves 'that this is necessary we need only contrast farms occupied by 'tenants at rents considerably below their fair value, with those 'let at their value. Speaking generally, the condition and cul-'ture of the former are very inferior indeed as compared with 'the latter. The occupiers of the under-rented farms, being 'able to pay their rents and make a little money without any 'unusual exertion, move on in the routine system to which they 'and their fathers have been accustomed; whereas necessity 'compels the occupiers of higher-rented farms to adopt every 'device, how novel soever, by which their produce may be 'increased and the expense of cultivation diminished.'*

It seems to be a law of our human nature that the soil must be held by idlers so that the world at large may get the full benefit of it. In order that the earth may yield its full fruits, the stimulus of rent must be applied; for as it will yield more than is necessary to pay for its cultivation, the only security to the community that it will all be produced is rent. To pay his rent the cultivator must raise more than enough to feed himself, and that surplus is sold and supports those engaged in other branches of industry, while the rent itself is spent in ways so as to make a demand for more labor of every kind. Rising rents are then clearly an indication of prosperity, and they must be taken by the landlord, for if a law is made by which the cultivator intercepts them, there is one of the most powerful stimulants to exertion on his part at once removed; and the experience of the whole world shows that the faculty of working to gain wealth, or to attain position, is that of the few, and the vast majority of cultivators would not be the better off for an absence or a restriction of rent, but would remain at the old level, only idler, lazier and less useful citizens generally.

If the foregoing be true, and increased rents a sign of national prosperity, it follows that hereditary cultivators at fixed rents are simply an obstruction to good agriculture, and prevent the flow of capital towards land, both by making the land itself an undesirable investment, on account of all these rights cumbering the property, and by discouraging the expenditure of capital among a set of tenants, whose very privileges prevent them exerting themselves to make a return. And the case of hereditary cultivators at fair rents is only somewhat better, even when fair rents are held to be what the land will fetch in the market. The objections to this last tenure are, 1*st*, that it is

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* Treatise on Economical Policy, McCulloch, page 209.

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impossible in practice to separate a right of occupancy from an idea that some advantage is to accrue thereby; 2*nd*, that it perpetuates the interference of a Government Officer to settle what should be a private contract between two parties. It is the business of Government to enforce the performance of a contract between citizens and not to make it for them; and 3*rd*, because, in Oudh at least, where the last definition is the law, the majority of the cultivators are hereditary, that is, have cultivated the same fields from father to son. This is true of eastern Oudh at any rate, and where the majority cannot be ousted the general rate of rent cannot rise. It is a fiscal officer who has to determine what is the market rate, and he must necessarily admit that to be the market rate which is generally paid. Indeed, in a very short time after the settlement was over, in the natural course of things, a sort of market rate would be established and it would come to be nothing but a fixed rate of rent after all. The tendency of everything in India to become a custom is patent enough, without requiring a law to make it more sure. But in land tenures this tendency is by no means confined to India. In Mr. Caird's account of the Duke of Cleveland's estate in Durham we find—'It is and always has been very low 'rented. The tenants are very rarely displaced; and some of 'them have held their farms in a regular series from father to 'son since the reign of Elizabeth. And yet, as might have 'been anticipated, the agriculture of the estate has been neg-'lected, the tenants have not made money, and its too beneficent 'proprietor is complained of because he does not reduce the 'present inadequate rental.'* The disinclination to quarrel with a man's tenantry, and the love of a quiet life operate to keep the proprietor from raising his rents; but it not unfrequently happens that, if the property changes hands and a new landlord does raise the rents, it is followed by a general improvement. 'A 'gentleman expended £20,000 in improving the lands of his 'tenants without charging them a sixpence of additional rent. 'He died, and his successor, being of a different cast, left off 'improving and tried what might be done by doubling the rents; 'and this advance of rent, though considered oppressive in the 'first instance, did more to promote improvement and the in-'terest of all parties than all the benevolence of the preceding 'proprietor. The tenants were now compelled to do for them-'selves what another did for them before.'† Our position therefore is, that increased rental is prosperity, and the best security for

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* Caird's English Agriculture, page 349.

† Dayis' Agriculture of South Wales. page 165.

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its proper increase is the interest of the proprietor; and, if it is meant that a progressive steady increase should take place, the way to bring it about is to refuse to fix any man's rent, but whenever he makes an agreement with his landlord to keep both parties to it. It follows, as part of this principle, that the landlord should have the power of ejecting a cultivator at pleasure. He will not do so often, and we need not be afraid of it. In England the landlord exercises this power, no man being able to hold his land against his will, for if he gives a lease he is held to have consented. In this country the security against a landlord proceeding wholesale against his tenantry is made greater, for the landlord is liable for the Government revenues, and to pay it he must have his land cultivated. The tenant is free to leave if he likes, and any general combination among them would ruin the landlord. We are aware that it will be answered that the cultivator cannot leave, that he is tied down by poverty, by associations, by a terror of going away, and that it is necessary to give him some protection. To this, we answer, that we have already shown that the law as it stands is no protection, that the fact is notorious that the most protected cultivators are no better off than their neighbours, and that if it broke the ties of poverty, associations, and the terror of going away, it would be the greatest of blessings to the land.

What then is to be done? It does not come within the scope of this paper to answer. Indeed any answer to such a question must depend so much upon the circumstances attending the operation of the present law in each province and under each government, that it is the men entrusted with the charge of them who alone can decide. We want the principle admitted, which might then be applied as was found best suited to the circumstances of each Government.

In the North Western Provinces the occupancy rights are of such old establishment, and have been so thoroughly recognized, that they now constitute property. Here they cannot be taken away; but we think legislation might advance a step and make them transferable. No injustice would be done to any one by that, certainly not to the proprietor, who might himself buy them, and who is most favorably placed to do so, as he could buy the right without ousting the man. At present the right is heritable but not transferable, or it has not been absolutely acknowledged to be so. To the cultivator himself it would be a positive boon, enabling him to sell the right, if he wanted to leave, and emancipate himself from that serf-like attachment which now binds him to the soil. It would relieve the landlord from an incubus which he cannot get rid of otherwise, and which

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presses him down at every turn. We believe that if the right were transferable it would be bought up rapidly by the landlords in the North Western Provinces, so soon as they understood its working. Of course the clause giving a man this right after twelve years' occupancy would have to be removed, but we do not propose to say more of a clause which we believe no rational person now stands up for. More than this we think cannot be done for the North Western Provinces, with due regard to justice. In Bengal and in the Punjab the local authorities must be the judges. If the Bengal courts really did not interfere in reat questions before Act X of 1859 was passed, it is certainly not too late to repeal the obnoxious clauses. It is for the Revenue Officers of the Punjab to say whether the right they secured to those whom they were pleased to call hereditary cultivators, should be maintained in the face of their own able Financial Commissioner's conclusions. Their settlement is but for ten years, and it depends upon the safety and expedieney of the measure how far it is justifiable. At the end of ten years it is open to Government to revise the whole arrangement, and they should earnestly consider this matter. It may be argued that in the Punjab they created the proprietory title also, and what is sauce for the goose is sauce for the gander. It is no such thing. There is no such law regulating the conduct of either individuals or communities in this world. In the Bible we have the right of the man vindicated who gave the laborers who had worked the whole day and the one who came atthe eleventh hour each a penny; and is not the practice consistent with the experience of every man? We gave the proprietory right in the Punjab because it was for our interest to grant it, and we might have withheld the occupancy right to cultivators for the same reason. It is for those on the spot to say whether that should be done now or at the end of the settlement. The Cis Sutlej and Trans Sutlej estates however have been settled for thirty years, and their case might be that of the North Western Provinces.

But in Oudh, where as yet no settlements have been declared, and the Government has only committed itself in the most vague way to maintain an hereditary right of occupaney in the revenue courts during the term of the summary settlement, having forbidden the Settlement Officers to recognise the rights of cultivators at all, (we call them rights because it is the custom, and for want of a better word) it is surely open to Government to deal with this question as may be found best. It is true the Oudh Government refuse to bind the landlord as to the rent, but we have shown that the law is to give fair rents, and the Government have no security how that will be interpreted. Besides we

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think we have shown that, if the landlord may not oust his tenant, rent will have a strong tendency to remain stationary. There is no fear of the land falling out of cultivation, and poorer than the cultivators are under protection they cannot be. The security of the landlord is the poverty of the cultivator and his local attachment; the security of the cultivator is the absolute necessity it is to the landlord to have his land tilled. What need of more? Why call in the fiscal officer to interfere so unnecessarily? It is impossible for him to estimate all the causes which may alter the value of land in any given locality, and it is not the business of Government to make contracts between private individuals. We do not regulate the prices of commodities, why should we regulate that of land? We would refer people anxious to study this question to Lord Palmerston's speech on the 23rd June in the House of Commons upon Mr. Maguire's motion for a Royal Commission to enquire into the relations of landlord and tenant in Ireland. He denounces the doctrines, which we here attack, as 'communistic,' 'totally at variance 'with the whole fabric of social organization, to which, in this 'country, we attach so much value and upon which the interests 'and prosperity of the country depend. Let the owner and the 'tenant settle their own affairs.'

The principle of legislative interference with the rights of property in order to give protection to certain classes is an unsound one, and always leads to more evil than good. Our belief is, that for one case of real oppression rectified, our revenue courts do ten cases of absolute injustice. It is unjust, in the first instance, to interfere to prevent a man doing what he likes with his own, for it directly lessens the market value of his property. It is on this market value that the flow of capital depends, and difficulties in the way of transfer and the creation of subordinate rights operate most strongly to keep land from taking its legitimate place among securities. The common interest on mortgages is 24 per cent. and the European Banks will have nothing to do with land as a security for a loan. Should they be obliged to enter on possession they find all the difficulties we have described in the way of its transfer, and they find themselves bound by all sorts of curious village customs, which give them infinite trouble, and are a source of great loss, while they finally have to submit to have their rents fixed by an officer who has, or may have, his own notions on the subject.

We are of opinion that the rights of the cultivator would be amply secured by two such rules as these.

Rule 1st.—He cannot be ousted during the term of his lease or in the middle of the agricultural year, unless he is a defaulter.

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Rule 2nd.—If he has been allowed to sow a crop without any agreement being made, he is to hold for that year at last year's rent. Beyond that we are of opinion that everything should be left to mutual arrangement, the landlord having the power to let his land to whom and at what rate he pleases, and the cultivator to carry his labor to the market where he can get the best wages.

That capital may come freely upon the land the right of property in it must be absolute, and its transfer clogged by no difficulties raised up to keep it in certain hands. In England no man can entail his estate now upon unborn generations, and the legislature, to get rid of copyhold tenures, compel the superior to take a sum and give up his rights, or to give a sum and purchase that of the under proprietor. We do not wish the Indian Government to do this, but simply to refuse to create rights in favor of parties who have no title to them, and to enable a man to transfer to another his own property as he pleases, without the interference of a third party to forbid him. Were that done we believe there would be a great improvement in the value of land in general, and the country would be greatly benefitted by an increased production. Old notions would give way before example and opportunity. Money would be borrowed to make masonry wells, a measure by which not only would the produce be greatly increased, but crops, like cotton, tobacco and sugar-cane, be raised on soils where now, for want of capital, the only harvests reaped are such as give but very poor returns.

No one can look at India now without seeing that we are on the eve of a great industrial development. Railways are spreading over the land; tea and coffee plantations covering the slopes of the hills; silk, cotton, and indigo beginning to be raised in localities which, a few years ago, never dreamed of such things. Men are beginning to travel, to see for themselves and think for themselves, and education is telling them that there is 'many a 'thing in heaven and earth beyond the reach of their philosophy.' The signs of progress are all around. It is as if the giant of India, after a sleep of 2000 years, were roused up and about to go forward again, and shall we do anything to stop him, or throw difficulties in his way? No! rather let us help him forward. Let whatever we do be in the right direction, in the way that has made our own country so great. Nations differ, we allow, they have various ideas and feelings which modify the laws which are common to the whole human race, and in India they have been and often must be deferred to. But here the modification proceeds, in two out of the three subjects of which this paper has treated, from ourselves, and is contrary to our own

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home practice and experience, while it has no warrant in what prevailed here before we took the Government in hand.

Let us cease from amateur legislation then, and make necessity, proved necessity, or at least such a manifest improvement as shall be patent to all men, the basis of our innovations. But let us cease to make laws on the principle of universal benevolence: by doing so we find ourselves taking one man's property to give to another to whom it does no good. We retard the progress of society, and have to fall back on our good intentions to answer a specific charge of injustice.

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ART. VII. 1.—*Report of John Hawkshaw, F. R. S., to the Egyptian Government.*—3rd February 1863.

2.—*Report of a Commission appointed by the King of Holland to report on the consequences of the Suez Canal,*—1860.

WE have often thought it insufferably provoking when opening a book for information on a subject of present interest to find that a long preliminary treatise on the subject as known to the ancients must be either waded through or skipped before we can learn its recent aspect. We have thought that in most cases it would be better to invert the arrangement, and after interesting the reader by a recital of the subject in its modern bearings, to trace it upwards to the original suggestion, to the first germ which has now received its developement We intend to follow this course in our present article and from a vast mass of material accumulated on the subject of the Suez Canal to lay before our readers the substance of two publications, the latest and the most important. One of these is the report of one of the most eminent of our English Engineers on the present state of the works now in progress on the Isthmus of Suez, and on the probability of their being carried to a successful issue; the other is the Report of Commission deputed by the King of Holland to enquire into and report on the probable consequences of the construction of the Canal, should it be successfully accomplished.

Three questions arise in connection with the great undertaking which is now fairly under trial:—I. Is the construction of a ship canal through the Isthmus of Suez practicable? II. Is it practicable at such a cost as to offer any prospect of remuneration? III. Supposing the Canal to be completed what will be its effects on the commerce of the world? The first of these questions Mr. John Hawkshaw, upon whom the mantles of Stephenson and Brunel have fallen, was requested by the Pacha of Egypt to investigate and report upon. The last the Holland Commission have considered very fully. The answer to the second must be sought from many and various sources, as well as from the two documents above mentioned.

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We have promised to begin at the end and go backwards, and must therefore state at once that Mr. Hawkshaw, after examining the subject in all its bearings and carefully viewing the progress of the works up to the present time, with a statement of their cost before him, pronounces the opinion that, in an engineering point of view, the project is practicable at a cost of ten millions sterling, that is, at a cost which requires a net return of half a million per annum to afford a dividend of five per cent. Into the question of the probable return for the capital to be expended Mr. Hawkshaw does not enter, considering it beyond his commission.

Mr. Hawkshaw's report is admirably brief, clear and decided. We shall endeavour to give its purport in as few words as possible under distinct heads. 'Should the project be carried out according to the last approved modifications and Mr. Hawkshaw's recent suggestions, the following magnificent works will occupy what is now one of the most sterile and deserted spots on the globe.

Two jetties projecting from Port Said into the Mediterranean Sea, the eastern jetty 3609 yards in length and the western 2515 yards, forming a canal 437 yards in breadth, will receive the vessels sailing for the east and conduct them into a basin at Port Said, having an area of 875 yards square. From this basin a canal 90 miles in length will convey the vessels to the Port of Suez. This Canal will be formed by excavations through the desert for 42¾ miles of its course, and for the rest by deepening and embanking where necessary the beds of Lake Menzaleh, Lake Timsah and the Bitter Lakes. The Canal when excavated will have a breadth varying from 190 to 262½ feet, and a depth of 29½ feet. The depth of excavations will vary from 29½ to 80 feet. At Suez the vessels will be received into a basin and graving dock now constructing for the railway and steam packet traffic. The stone jetties originally contemplated at the entrance to the Red Sea have been abandoned. It is now proposed to dredge a channel from the mouth of the graving dock into deep water, the portion to be dredged averaging 16½ feet of depth.

'The basin and graving dock and works connected therewith 'are undertakings wholly unconnected with, and independent of 'the operations of the Suez Canal Company,' though now rendered auxiliary to them by the Government of Egypt. They were projected as an adjunct to the railway communication and have been undertaken by the Messageries Imperiales who have entered into a contract with the Egyptian Government to complete them for a sum of £ 240,000. 'The works consist of an

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'extension of the Railway by embankment into the Red Sea
'and of the construction of a basin and also of a graving dock.
'The Railway will be laid on the sides of the basin where there
'will be a sufficient depth of water for the vessels of the
'Peninsular and Oriental Steam Navigation Company to enter.
'Thus the passengers and cargo will be delivered and received
'directly to and from the Railway and the fuel will be brought
'alongside. The length of the Railway will be 3 miles. The
'basin is intended to be 1,476 ft. long, 820 ft. broad, and 23 ft.
'below the mean level of the sea. The graving dock is to
'be 393 ft. long, 95 wide at the top, and 75 ft. wide at the bot-
'tom, and is to be constructed at the upper end of the basin.'

Such is the splendid apparatus by which it is proposed to overcome the interruption presented by the Isthmus of Suez, and connect the Mediterranean with the Red Sea.

But it remains to describe a most important auxiliary work, viz., the construction of a Fresh-water Canal from the Nile, near Cairo to Timsah, and thence to Suez. This work is of a kind with which our Indian readers are perfectly familiar. Although undertaken in connection with the Ship Canal, and primarily intended to afford fresh water to the labourers employed on the Company's works, and to the town of Suez, this work is complete in itself, and might stand alone as a project of Irrigation and Navigation. From above the Barrage, or, as it would be called in the Madras Presidency where such works are most common, the Anicut, of the Nile, it is proposed to lead a channel by Ras-el-Wade to Timsah and thence to Suez. From Cairo to Ras-el-Wade the length of the Canal will be 56 miles, and it is estimated to cost £140,000. From Ras-el-Wade to Timsah the Canal has been already executed. This work comprised about 1,308,000 cubic yards, and has been completed for £28,000. The length of the portion of the canal from Timsah to Suez will be about 50 miles. The estimated cost of this section is £140,000, which is based on the cost of that portion of the work already performed. So important is this canal to the general project that the Company have resolved to concentrate their forces upon the latter portion. When Mr. Hawkshaw visited the works 9,000 men were employed on it, and this number was to be increased as largely as possible in the hope of completing it by May 1863.

The completion of this section would have the following valuable results:

'This section of the fresh-water canal passes near to and
'on the north eastern side of the mountain of Généffé, and
'the material of the mountain, which is calcareous rock, is well

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'adapted for building purposes and for the formation of the sea 'jetties. When finished there will be a water communication, 'not only from Généffé, but also from Suez *viá* Timsah to Port 'Said. It is intended to convey the stone for the jetties at Port 'Said from Généffé along this canal, and hence the importance 'of its immediate completion. The portion of the western 'jetty at Port Said already executed, has been constructed of 'stone conveyed by sea from the quarries of Mex, which is 'more costly than if the stone were brought from Généffé. 'A collateral advantage of the completion of this section of 'the fresh-water canal will be, that the inhabitants of Suez and 'the shipping and railway locomotive establishment at that 'place, now dependent on water carried from Cairo, a distance 'of 90 miles, will be put in immediate connexion with a fresh-'water canal from the Nile.' The upper section of this canal is not yet commenced, the supply of water being drawn from the existing conduits which now reach Ras-el-Wade; but these become dry or nearly so at low Nile, 'the fresh-water canal therefore cannot be perfect until 'it is put in proper communication with the portion of the 'Nile above the Barrage, nor indeed until the Barrage, which 'is still incomplete, is finished.'

We have said that this canal though designed as auxiliary to the greater work, is itself an important work of irrigation. 'The Company have purchased for £80,000 a tongue of land 'containing about 28,000 acres extending from Abbaceh to Ras-el-'Wade, and, as part compensation for their outlay on this work 'they have the privilege of cultivating as much land on each 'side of the canal as they can find means to irrigate, paying to 'Government the same tax upon it as is charged on the other 'cultivated lands of Egypt. Between Cairo and Abbaceh 'there appear to be no lands worth cultivating by the 'Company, but they are of opinion that interest on that 'portion of the expenditure may be made by disposing of 'water for irrigation purposes to the adjoining landowners. 'From Ras-el-Wade to Suez the Company calculate that 'in 20 years 123,555 acres may be cultivated by means of the 'fresh-water canal.'

Thus the prospectus is as follows:—

The whole cost of this fresh-water canal is estimated by the International Commissioners at £360,000. Supposing the interest of the first portion, which is to cost £140,000, to be covered by the sale of the water, there remains an expenditure of £220,000 only for the irrigation of 151,555 acres of land. This is about 30s. per acre. We do not know what may be considered a fair

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estimate of the rental of such land in Egypt, but the following calculation appears to be a safe one. We find it mentioned by Mr. Hawkshaw that the Ouady estate let out to Arabs, has this year brought to the Company a net revenue of £5,960 (say £6 000). If this estate of 58,000 acres yielded that sum, the whole area of 151,000 acres will yield £32,000 as the interest on the above outlay of £220,000 or about 15 per cent. To those acquainted with the irrigation works of India such an estimate will appear by no means excessive. Indeed in a land so highly productive as Egypt, and in a locality so advantageous as this will be when the works are completed, a water rent of 10s. per acre would, we conceive, be very moderate, and this would raise the return on this outlay to £75,000 per annum. A rental of £75,000 a year would be a handsome dividend on a capital of £220,000; but we must keep in mind that when viewed as a part of the general undertaking, it is but a small portion of the sum of £500,000 required annually to afford a dividend of 5 per cent. on the whole capital of ten millions sterling. But we are anticipating a later portion of our subject.

It has been seen by the above statement that the works are already in progress. By a statement placed by M. Lesseps in Mr. Hawkshaw's hands, it appears that the expenditure to 1st December 1862, amounted to no less than £1,984,000 including the purchase of the Ouady estate. The portions of the works accomplished up to date are:

1*st*. 'The fresh-water canal from Ras-el-Wade to Timsah (£28,000). 2*nd*. 'As respects the ship canal the Company 'have, partly by dredging in Lake Menzaleh and partly by ex- 'cavating between that Lake and Lake Timsah, opened a water 'communication between the Mediterranean and Timsah sufficient 'for flat-bottomed boats of small draught of water.' 3*rd*. 'The 'Company have also made a commencement at Port Said, having 'executed a small portion of the western sea jetty.' 4*th*. 'The rest of the expenditure has been on expenses preliminary to the formation of the Company, purchases of land 'and houses, plant, interest to shareholders, expenses of manage- 'ment in France and Egypt, salaries &c., as shewn in the Appendix.* On the important heads of the estimated cost of the works when completed the probable time of completion and cost of maintenance Mr. Hawkshaw thus states the result of the investigations through which it is not necessary that we should follow him. 'Having now reviewed the several matters connected with 'the engineering construction and with the maintenance of the 'canal, I have arrived at the following conclusions.

* Vide Appendix, page, 371.

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'*Firstly*.—As to engineering construction there are no works 'on the canal presenting on their face any unusual difficulty 'of execution, and there are no contingencies that I can 'conceive likely to arise that would introduce difficulties insur- 'mountable by engineering skill. *Secondly*.—As regards the 'maintenance of the canal, I am of opinion that no obstacles 'would be met with that would prevent the work when com- 'pleted being maintained with ease, and without the necessity 'of incurring any extraordinary or unusual yearly expenses. 'As regards the cost of construction, the question of estimate 'will have to be modified in accordance with the observations 'I have previously made on the points directly affecting it, 'and it stands as follows:—

	£
'Total capital proposed to be raised ...	8,000,000
Earthwork saved	480,000
	7,520,000
Add for protective works through Bitter Lakes ...	280,000
	7,800,000
Add for pitching bottom and slope of Canal from Red Sea to Bitter Lakes,	500,000
	8,300,000
Add further sum probably needed for interest on the capital during construction,	800,000
	Total £9,100,000

'Looking, however, to the money already expended compared 'with the work done, and considering the contingencies connect- 'ed with the probability of meeting with rock at the Red Sea 'entrance, and that the deep dredging in the canal, and at the 'Mediterranean entrance may cost more than the estimated 'amount, and also looking to the contingencies incident to an 'undertaking of such magnitude as the ship canal, I should 'think it prudent for you to assume that, before it be fully 'finished and perfected, the expenditure including the additional 'cost of the modifications I have suggested (should the whole 'of them be adopted) together with the land purchases and cost 'of buildings may reach £10,000,000. In this estimate I 'assume the time within which the canal will be open for traffic 'will not exceed five years. I have however given no credit 'for rental that may be derived from the land and dwelling 'houses of the Company. As regards the cost of maintenance 'the International Commissioners entered upon that subject in

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'detail, and estimated that a yearly expenditure of £62,820 'would be sufficient for the purpose. I see no reason to differ 'from that conclusion.'

Thus then, at the end of five years, if this noble scheme is carried out in its integrity, these magnificent works will be available to the commerce of nations, but will require a return of £562,820 per annum to provide for their maintenance and furnish a dividend of 5 per cent. to the subscribers.

This then is the view of the subject taken by a person most competent to form a just judgment of the undertaking, viewing it by the light of practical experience gained by the prosecution of the works up to the present time, and viewing it simply as an engineering work without reference either to the pecuniary results, or the political effects of this vast undertaking. We conceive, therefore, that Mr. Hawkshaw's statement will be taken as a safe basis for argument on the future prospects of the Company. Mr. Hawkshaw's Report is dated 3rd February 1863; the accounts upon which it is founded are brought down to the 1st December 1862. The following letter shews that the Report has been considered encouraging by the Directors of the Company, and that the progress of the works has been uninterrupted either by political difficulties, or by pecuniary alarms.

It was published in the City Article of the 'Times,' and relates to the progress of the works of the Suez Canal, with regard to the success of which Englishmen continue so persistently sceptical:—

Sir,—As there has been an absence for some time past of any mention in the 'Times' with reference to the works of the Suez Canal, will you permit me to state that they have not suffered any interruption and continue to be pushed forward with unabated vigour? At the meeting in Paris, on the 15th of July, M. Ferdinand de Lesseps made his annual statement, entering minutely into every detail connected with the affairs of the company, and which have given general satisfaction. The funds in hand are sufficiently ample to obviate the necessity for any further call until next year. The able report published by the President of the Institution of Civil Engineers in London, who went out to Egypt at the solicitation of the Egyptian Government, will be read with interest. It confirms what has so often been put forward, that, as regards the engineering construction, there are no works on the canal presenting on their face any unusual difficulty of execution, and that there are no contingencies likely to arise that would introduce difficulties insurmountable by engineering skill. And as regards the maintenance of the canal, the report further states that no obstacles would be met

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with that would prevent the work, when completed, being maintained with ease and efficiency, and without the necessity of incurring any extraordinary or unusual yearly expenditure.—I have the honour to be, sir, your very obedient servant,

DANIEL A. LANGE,

Director and English Representative of the Suez Canal Company. London, July 28.

It is also announced that the difficulties arising from the question of forced labour have been overcome, and the political bearings of the question adjusted, so as to remove the hindrances which threatened to arrest the progress of the undertaking from causes other than its physical difficulties. We rejoice that it is so, and that the opinions of the advocates and opponents of this great project will be fairly tested, provided the shareholders are willing to risk their money; and we rejoice, too, that if the work should hereafter be arrested and the commerce of nations deprived of this boon, it will not be attributable either to the jealousy of English engineers or the alarms of English politicians.

We propose in the remainder of this article to suppose Mr. Hawkshaw's views to be borne out by fact; to suppose the capital, ten millions sterling, to have been punctually paid and honestly expended, and that at the end of five years the works have been completed for ten millions sterling, and that it is announced to the world that the Suez Ship Canal is open to the vessels of all nations, and that the Company now look to reap the fruits of their bold adventure. We have shewn above, that to afford them a return of 5 per cent. the works must yield a return of £562,820 per annum. But as the irrigation works will probably have been in progress for some years, we will suppose them to yield sufficient to cover the cost of maintenance of the canal, and strike off the £62,820 per annum under that head, and view £500,000 as the amount to be realised in order to afford a dividend. Whence are the shareholders to receive this amount?

The only answer that can be given, viewing the subject commercially and irrespectively of any guarantee either by the Pacha of Egypt or the Emperor of the French must be, 'from the tolls 'paid by vessels using the canal.' The question then arises what rate of tolls is to be collected and what number of vessels must pass through the canal to yield the required sum. We find that the toll which it is proposed to levy, is 10 francs per ton, or £40 per 100 tons on vessels of all classes irrespectively of the value of the cargo. It will therefore require 1,250,000 tons, or say 1,250 vessels, of one thousand tons

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each, to pass through the canal in order to yield the required sum. In other words four vessels of one thousand tons, or their equivalent in larger and smaller vessels, must pass the canal daily (Sundays excepted) in order to raise the tolls to the required amount.

In this calculation so far from overstating the question and placing it in a point of view unfavourable to the projectors we find on turning to their own publications that we have considerably understated it. Before the Chamber of Birmingham in 1857, Mr. Lange speaking in the name of M. Lesseps estimated the annual expenditure on maintenance and interest (on eight millions sterling) at £463,000 per annum and gave the following statement of the anticipations of the Company. 'I would 'however add, he observed, that an average of two ships per day 'each 2,500 tons burthen, would yield nearly £800,000 per 'annum, and that while these two ships per day only represent 'an annual tonnage of 1,800,000 tons the actual tonnage that 'goes round the Cape from all parts of Europe is 3,000,000 'tons. If this canal were open at present we estimate that 'we should have 2,000,000 of this traffic. But, according to 'the Board of Trade returns it appears that the annual increase 'in foreign shipping is 322,000 tons, so that by the time the canal 'is formed six years hence the total increase would amount to '2,000,000 tons, and the probability is that we should have '4,000,000 tons going through the canal instead of 2,000,000. 'I think I have shewn you enough to prove, as far as we can 'possibly see, that the likely returns of the canal will be great.' We take this as a fair statement of the views of those who favour the project as a commercial speculation, only observing that since these words were spoken the six years have passed away, and this delay with some alterations in the plan has added two millions sterling to the capital to be expended, and consequently £100,000 to the interest to be paid annually.

We shall now endeavour from such information as is in our possession to ascertain what are the probabilities of so large a commerce being carried on through the canal as is thus shewn to be necessary to render the enterprise remunerative. In this enquiry we shall follow chiefly the views of the Dutch Commissioners as being free from all suspicion of bias. On the recommendation of his Minister of the Interior the king of Holland, when the canal of Suez became a definite project, issued a commission with the following objects in view:

'*1st.*—An enquiry into the probable effects on commerce and 'navigation in general, and on those of the Low Countries in 'particular, of the construction of the Suez Canal.

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'*2nd.*—An indication of the course and measures to be followed and adopted in order to preserve and augment as far as possible the share of the Netherlands in commerce and navigation.

'*3rd.*—A suggestion of the steps to be taken on the part of the Government to sustain and promote the efforts of the commercial classes.'

We consider the report which resulted as particularly adapted to our purpose as being free from all prejudice either from French enthusiasm or English rivalry; while the matter has been treated by the Commissioners with liberality combined with Dutch minuteness. 'A project, they observe, which has been 'accepted with favour by the public can be viewed only from a 'common point; it would be to display selfishness to lose sight 'of this point of view and uselessly to oppose local interests to 'the advancement of the common good.'

We shall not endeavour to carry our readers through the two hundred and fifty pages of the report now before us, for the conclusions at which the Commissioners arrived may be briefly stated.

They are: (1) 'That with a Screw Steamer of 2,400 tons and '600 horse power the duration of a voyage by the Cape may be 'calculated at 53 days 9h. 3m. with a consumption of 2,770 'tons of coal, and by Suez at 40 days 5h. 10m. with a consumption of 2,151 tons of coal. That although it appears that for 'navigation by steam to pass the route by the canal deserves 'the preference it can only be made use of for the transport of 'letters, passengers and merchandise capable of bearing a very 'heavy freight. For the transport of the principal products of 'the Dutch Colonial possessions it cannot be employed in consequence of the expense of fuel and the room which they 'occupy in the vessels.'

2. That the canal will be little used by sailing vessels. 'We 'do not hesitate to conclude that for sailing vessels going from 'the Low Countries to Java and beyond it, and returning thence 'to the Low Countries the route by Suez offers disadvantages, 'which are augmented by the difficulties of the passage through 'the Straits of Gibraltar and Babel-mandeb but especially of 'the Straits of Gibraltar, where vessels in getting out are often 'delayed a very long time. The same delays are produced in 'the Red Sea by calms and contrary winds. These delays 'cannot be remedied in open sea by means of steam-tugs.'

The calculations from which this conclusion is drawn start from Lizard Point, and are therefore equally applicable to the trade of England and to that of the North of Europe generally,

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except inasmuch as the voyage from the Cape to Batavia may be shorter than that to British India. But it is unnecessary to enter further into this question inasmuch as the projectors of the Canal themselves admit that the passage by the Red Sea is little likely to be made by sailing vessels. Thus in one passage in M. Lessep's publications it is observed. 'The 'charge for passing along the canal had been fixed at a maximum 'of ten francs per ton. Although the canal would be chiefly 'available for the passage of steam vessels, sailing vessels could 'also take advantage of it.' Again, 'It was not sailing vessels 'but steamers and screws that they had calculated upon, al- 'though sailing vessels at certain periods of the year, from April 'to September, could always make use of the canal.'* Again, at p. 83. 'Mr. Lange said, sailing vessels would require 'to choose their time—but sailing vessels had not been much 'calculated upon.' It is, in fact, upon five thousand tons per day almost entirely of steam tonnage that the projectors calculate.

Steamers and sailing vessels being thus excluded from the calculation the Commissioners' report is chiefly occupied by the inquiry whether navigation by vessels of a mixed class, that is clipper sailing vessels with auxiliary screws, adopting the passage of the Suez Canal is likely to supersede the navigation by the Cape of Good Hope. The result of very minute calculations on this subject is as follows :

By the Cape—Average length of outward voyage	80	days.
By Suez (at the most favourable season)	62	„
Saving	18	days.

	fr.	
Cost of outward voyage and home by the Cape	179·11	per last
By Suez ...	228·49	„
Difference ...	49·29	per last.

(or about £1 per ton.)

Being for 1,039 lasts fr. 51,211·89. At this cost the return cargo is received 18 days earlier. The average value of the cargo is 874,500 Florins. Eighteen days interest is—fr. 4,549·85, showing a difference to the disadvantage of the Canal of Suez of 46,662·04 (about £1,866).

The Commissioners enter into numerous other calculations of the duration and cost of voyages outward by Suez and

* Inquiry into the opinions of the Commercial classes of Great Britain on the Suez Ship Canal (p. 21.)—By M. Lesseps.

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home by the Cape, and outward by the Cape and homeward by Suez, and give each for different seasons of the year. We have selected one which we have thought gives the fairest average. The enhanced cost of the voyages by Suez arises of course chiefly from the greater use of steam on this voyage compared with the Cape route.

The general conclusions of the Commissioners from the calculations they exhibit are as follows:

'1*st*. That with reference to the expenses of the voyage by 'the Cape of Good Hope common sailing vessels are at a 'disadvantage compared with "Mixed Clippers" following the 'same route if the rates of insurance, and the interest on 'the value of the cargo received 36 days earlier be taken into 'account.

'2*nd*. That for mixed clippers the route by the Cape of 'Good Hope is the least expensive. That if a vessel of this 'class on the outward voyage takes the passage by the Cape 'and on the homeward that by Suez during the months from 'March to October, the transport will be accelerated by 18 days 'and the goods will reach the Low Countries 54 days sooner 'than by a common sailing vessel at an enhanced cost of 'fr. 3.04 per last (about 2s. 6d. for two tons).

'3*rd*. That the expenses of a mixed clipper doubling the Cape 'outward and returning by Suez, after allowing for the difference 'of interest on the return cargo are 26 fr. 58c. per last higher 'than for the same ship doubling the Cape outward and home-'ward.*

'4*th*. That the enhanced expenses of a mixed clipper passing 'through the canal outward and homeward compared with the 'same vessel doubling the Cape on both passages, deduction being 'made of the difference of interest on the home cargo are.

'(a.) Under the most favourable circumstances 44 fr. 90c. 'per last, with a saving of 18 days on the return.

'(b.) Under less favourable circumstances of 60 fr. 90c. with 'gain of only 9 days.

'5*th*. If a mixed clipper make the outward voyage by the 'Cape and uses the canal only on its return, there will result a 'saving of 18fr. 31c. per last compared with the same vessel 'going and returning by the canal, the return cargo arriving at 'the same time.'

Thus then the decision of the Holland Commissioners is that if the present system of navigation by sailing vessels should be changed as they recommend in favour of "Mixed Clippers,"

* The franc is equal to about 10d. or 25 francs = 1£ or 10 Rs.

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the route by the Cape would still have the preference over the Suez route for the trade of Northern Europe. And the Commissioners commence the second division of their report in the following words:

'In summing up the result of the first division of our en-'quiries, we see that it is not exactly true, generally speaking, as 'has been asserted in so many writings that the cutting of 'the Isthmus of Suez will be to the profit of all countries, 'that the distance which separates them from India will be 'reduced, and that the only difference in this respect between 'the different states will be in proportion to the share taken 'in this enterprize. On the contrary it is evident to us that 'voyages by sailing vessels, outward and homeward, by the 'Canal of Suez do not offer any advantage, but will rather 'entail loss of time and money on comparing the probable 'results of such voyages with those of actual passages by the 'Cape of Good Hope. The advantages of this last route '(by the Cape) will be much augmented when it is traversed 'by sailing clippers and mixed clippers following the newly 'discovered Nautical Route (referring to a new track recom-'mended by scientific men of Holland for the Cape voyage). 'The route by the Cape will often be the most advantageous 'for the merchant ships of Western Europe and America, making 'for India and especially those destined for countries situated, 'as are our Eastern possessions, to the south of the Equator. 'For these expeditions the route by the Isthmus of Suez will 'have no advantage, or advantage so uncertain that a large 'number of navigations will continue to follow the ancient route 'by the Cape.'

To this conclusion the Commissioners are brought with regard to the trade of Northern Europe, but it must not be thought that they therefore view the project as devoid of consequences most important to the world at large and to the interests of all nations Holland included. On the contrary they consider that it will influence most favourably the commerce of nations in proportion to their proximity to the Isthmus, and that to the countries which border the Mediterranean it will give advantages which render it the duty of the Dutch Government to take every possible precaution to ensure to Holland a fair share of the benefits which it will bestow.

It is right that we should here state, that while we have given as fair a statement as our limits would allow, of the report of the Dutch Commission, it is the report of a majority only, some of the members drawing other deductions from the statistics which they had before them. The following extract from a

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published letter from one of the dissentients to M. Lesseps expresses the views of the minority:

'It would be a great mistake, writes M. Constad, to think 'that the report of the Dutch Commission is unfavorable to the 'Canal. On the contrary it contains many passages favourable 'to the Isthmus of Suez, particularly as regards other countries, 'and especially China, Japan, India, Egypt, Turkey, Russia, 'the Ionian Islands, the States of the Mediterranean, Austria, 'Sardinia, Venice, Trieste, Genoa, Marseilles, the South of 'France, Algeria, Spain, &c., all of which as shewn in the report 'will have a large share in the benefits of the Canal.

'The Commission again expresses itself very distinctly in 'many places on the advantages of the Canal to England and 'the Low Countries, although it thinks we shall need much ener- 'gy and prudence to secure our share. Farther, the Commis- 'sion has arrived at very different conclusions as regards naviga- 'tion by sailing vessels, by mixed vessels, and by steam vessels. 'One may almost question whether, some years hence, navigation 'by sails will exist. For myself I think not. In a few years '(when the canal is finished) our navigation will be only by steam, 'and all that is now said regarding navigation by sails will 'find its reply in the *fait accompli* of steam. Almost all agree 'that with steam everything is in favour of the canal of Suez.

'I cannot enter here into all the details of the Commissioners' 'calculations, which can be more conveniently examined when 'the French translation, now under preparation, shall have ap- 'peared, with the necessary commentaries. It is sufficient for 'me to tell you that my own private opinion is no way changed, 'and that I hold to my opinion, that the cutting through the 'Isthmus of Suez, that great Work of Peace, will be a boon to 'all the nations of the globe.

'It is clear that the advantages of the canal will be in 'proportion to the geographical position of the different coun- 'tries. I think too that Holland has reason to apprehend, that 'she will be one of the nations least benefited by the construc 'tion of the canal; but I think that she will derive as much 'benefit as should content her. We should not be jealous of 'the gains of others when we ourselves receive a good share.'

The impression which the report of the Dutch Commissioners is calculated to convey, is farther endeavoured to be removed by the authority of M. Larousse, Hydrographer of the (French) Imperial Navy, who taking Point de Galle, instead of Batavia, as one of the bases of his calculations, gives the following as the average duration of the voyages of sailing vessels, a result very different from that of the Dutch Commission:

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From Lizard Point to Point de Galle.

By the Cape	106	days.
By Suez (in Summer)	55	„
Difference	51	„

From Marseilles to Point de Galle.

By the Cape	109	„
By Suez	42	„
Difference ...	67	

And M. Larousse gives as the result of his calculations from the Dutch statistics, that the passage by Suez will effect a saving on the expenses of a sailing vessel whenever the voyage is shortened by 24 days. Thus widely are opinions on this important point divided, but we have given fairly those of both parties. Between them experience alone can decide.

But if we must hazard a conjecture; if we should suppose ourselves in the position of a person carefully considering whether he could take part in the work as a mercantile speculation, with a fair prospect of an adequate return for his capital, we think that the result would be against our taking shares. We consider that the work will greatly advance communication with India by steam, but that it would not be safe to calculate on the adoption of the Suez route by any sailing vessels which would have to pass the Straits of Gibraltar as well as the canal and the Straits of Babel Mandeb. That the canal may increase the use of steam in preference to sails we consider to be highly probable, but such a process must be gradual. Such vessels will not be constructed in anticipation of the canal. The success of the work is not so well assured as to lead to this. Of the three millions of tons which M. Lesseps states to be now engaged in the Eastern trade, how small is the proportion of steamers! Of 6,510 vessels constructed in England, from 1851 to 1857, only 1,199 were steamers, giving an average of only 171 a year. In Holland, within the same period, of 1,416 vessels constructed, only 36 were steamers. How slowly then must the navigation of the world change!

Again, it must be remembered that the transport of mails, passengers, and goods of high value, will be by no means accelerated by the Suez canal. They are passed now by the Railway in 36 hours; more than this will be required for the lengthened voyage from Alexandria to Port Said, the passage through a canal of 90 miles, and time for coaling.

By passengers, except invalids the route by Cairo and Alexandria will always be preferred as affording an agreeable

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break in the sea voyage, and the opportunity of visiting two interesting cities, and this without loss of time. The canal will most probably be used by the Peninsular and Oriental Company for many of their vessels, because the heavy expense of stationing vessels to wait for several days on each side of the canal for the Mail expected on the other side may be in a great degree economised; but we much doubt whether the saving will be so great as to allow of any appreciable reduction in the charge for freight on merchandize. The canal dues on a vessel of 2,500 tons will be £1,000, and we do not see how the rates of steam freight can, through its agency, be materially lowered. It is commonly reported, that without the subsidy for the Mails the Peninsular and Oriental Company's vessels would not pay, and it has yet to be proved that the transport by steam of goods only at rates which shall attract merchandize from the Cape route, can be made remunerative.

Still, the increasing intercourse between India and Europe may be much augmented by cheaper fares resulting from competition, and mixed clippers carrying passengers and goods of high value may prove remunerative when the price of coal is so greatly cheapened at Suez and Aden, as it is likely to be by the Canal, and the Screw Company which tried the Cape route and failed, may be revived. But the most liberal calculation that we can venture upon is to suppose that five years hence the Peninsular and Oriental Company may send weekly vessels both to Calcutta and Bombay, whereas they now send fortnightly, and that the Messageries Imperiales and the Austrian Lloyds Company may have established from Marseilles and from Trieste or Ancona, an aggregate of traffic equal to that of the Peninsular and Oriental Company. Suppose the vessels of the Peninsular and Oriental Company to amount to 8,500 tons per week, viz. 3,500 from Southampton and Marseilles, and 5,000 from Calcutta and Bombay; multiplying this by four and twelve it gives 408,000 tons per annum for the Peninsular and Oriental Company, and 816,000 tons for the whole. This at 10 francs a ton gives a return to the canal of £326,400, an amount far short of the required sum. This is on the supposition that every vessel goes through the canal, which we think highly improbable. We do not think that the line by Cairo will be entirely abandoned.

Considering, therefore, that each year's delay beyond the five years will add half a million to the cost of the works; considering too that under the late orders of the Sultan regarding forced labour, the price of labour has been greatly raised. We cannot persuade ourselves that an investment

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in the Suez Canal would be a safe speculation, and we think that the fact so much dwelt upon by French writers, that no Englishmen have taken shares, may be attributed rather to English commercial prudence than to national jealousy.

We have endeavoured to view the subject as fairly and dispassionately as we can, and we shall close this part of our subject by letting M. Lesseps speak for himself:

'The project of cutting through the Isthmus of Suez, 'is opposed on the other side of the channel on commercial and 'political grounds. Considered as a commercial undertaking, 'nearly the whole of the English Press maintains that the 'project is impracticable, and that if executed it will have 'so little practical use that it will not cover its cost. On the 'other hand the Press and public opinion on the continent of Europe, and the world generally, are unanimous in an 'opinion diametrically opposite. Of these two views which is 'the right one? If both are sincere, the partisans of neither 'can regret that they should be put to the test of the event—of 'experience—of fact. The undertaking is sufficiently supported 'by those who have faith in its success, and this success if 'obtained, will, by their own admission, benefit those who do 'not believe in it, and from whom we do not ask any kind of 'concurrence or assistance. This test the Universal Company 'claims the right of trying at its own risk and peril, and the 'English nation has too much good sense and justice to wish to 'prevent a Commercial Association from making the experiment. 'England cannot expect that the 25,000 shareholders, who re-'main immoveable in the midst of all the difficulties created at 'every step to discourage and dismite them, should sacrifice 'their conviction and their interests in a project in which Eng-'land was, and is still free, to join; and which assures to Eng-'land, if it succeed, the full and equal enjoyment of the 'benefits offered to the commerce of the whole world. By these 'remarks I make no pretensions to change a line of conduct 'already adopted, or to alter fixed opinions, I only wished to 'shew that, if the Continent does not think in common with 'a portion of the Press of England, as to the practicability and 'the utility of the Suez Canal, the Continent has on its side 'strong arguments and weighty authorities.

* * * * *

'The shareholders of the Suez Canal are about to open a new 'route to the commerce of the world, but they will not prevent 'those who prefer it from passing by the route of the Cape, any 'more than the shareholders of the Railroads hinder the traffic 'by ordinary roads. They have the right of not admitting that

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'their opponents are more clear-sighted protectors than themselves of their own interests. They are happily free, and they 'run no risk of finding themselves interdicted the management 'of their own property, or obliged to hand it over to those who 'profess to give them good advice.' *

Such arguments are unanswerable, and may well close this portion of our subject; while we await, with the interest which every man of ordinary intelligence must feel, the great decision of facts.

On the third head of our subject we shall say but few words. The Canal of Suez, though it may not remunerate the projectors, cannot fail to confer vast benefits on commerce and civilization, and as a great work achieved by the principle of private combination, will stand in noble contrast with the useless monuments of despotic authority almost visible from its surface. The Canal of Suez and the Pyramids of Egypt will mark two important epochs in the world's history. But we anticipate no revolutions in the commerce of nations. We form no pictures of Venice and Genoa rising from their ruins, and we do not think that Lord Macaulay's New Zealander will immediately take his passage by the Suez Canal to sit on the ruins of London bridge. The fact that the Levant and Egypt are nearer to Marseilles than to England, has not deprived England of her share in the Cotton of Egypt, and the Currants of Zante, and we do not anticipate any disastrous effects upon the trade of England, although that of Marseilles should receive, as it doubtless will, a valuable stimulus from its proximity to India and China. There is a vast difference between the commerce of the ancient and the modern world. The spices, the pearls, and the costly silks of India were exchanged for the golden aurei of Rome and the sequins of Venice. The raw cotton, the wool, the jute and the linseed of modern commerce, throw into insignificance the trade which formerly passed by the Red Sea, and raw silk has taken the place of the fabrics which Europe sought in Asia when its own looms produced only the coarsest woollen cloths. We can rejoice in the great benefits which we hope the Canal will produce in Egypt, Syria, Arabia, Abyssinia, and Madagascar, without any fear of England not having its full share in the trade which, we trust, is to civilize these nations.

With regard to the effects of the Canal on the politics of Europe M. Lesseps shall again speak, for his words are distinct and weighty.

'There remains then only the Politics question. It

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* *Exposé Général des faits.* Par M Lesseps.

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'is the only one which we have now to discuss. Objec-
'tion upon objection has been heaped around it. It has been
'said that the Company is not universal, that it has become
'French; that the concession of the Viceroy of Egypt con-
'fers upon it sovereign rights over the territory of the Isthmus;
'that it invests it with the power of erecting fortresses on
'the line of the Canal; that in consequence, and as following
'upon these privileges, which are inconsistent with the integ-
'rity of Turkey, France would be able with ease to possess her-
'self of the passage of the Isthmus in the first place, and after-
'wards of Egypt herself. Now neither one nor other of these
'suppositions has the slightest foundation; each of them is
'an invention and a chimera. The Company of the Suez Canal,
'to which all people, without distinction, were publicly invited
'to subscribe, and of which the capital, it is true, was to France's
'great honour furnished mostly by her, has remained what it was
'when it was first instituted. It is in the first place Egyptian,
'because its place of meeting (*siège social*) is at Alexandria, and
'its operation is in Egypt; it is secondly Universal, because its
'component parts, financial and administrative, as well as its
'object are Universal. The deeds of concession of His Highness
'the Viceroy of Egypt have defined the rights of the Company
'in terms which I shall here transcribe exactly.

'The enjoyment of the public lands (*territoires du domain*
'*public*) which shall be occupied by the Maritime Canal traver-
'sing the Isthmus, and by its *annexe* the fresh-water canal led
'from the Nile is ceded to an Egyptian Company gratuitously,
'and free from all imposts and claims for the whole duration
'of the concession, at the end of which the lands and canals shall
'become the possession of the Egyptian Government.

'The enjoyment of lands hitherto waste, not belonging to pri-
'vate individuals, and which shall be watered and cultivated by
'the efforts, and at the expense of the Company, is equally
'made over to them. These lands shall be exempt from imposts
'for ten years, dating from the time of their being occupied
'(*mises en rapport*) according to the Mahomedan Law; they
'shall then be subjected to the obligations and imposts to which
'lands similarly circumstanced are subject in other provinces of
'Egypt.

'I call attention to the word enjoyment employed intention-
'ally and throughout. According to Mussulman Law the
'property in the land is the attribute of the Sovereign power,
'which on the other hand cannot dispossess the occupants, or
'those holding under them, unless for three consecutive years
'they leave the land uncultivated, and fail to make it produce

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'the value of the imposts. In order that the plenitude of 'sovereignty may be preserved intact, it has been expressly 'stipulated that the thing conceded was an enjoyment, and that 'the lands would be subject to all the obligations, fiscal or 'other, present or future, common to other parts of the territory 'of Egypt. Here then is a concession such as is made every 'day by European Governments without any apprehensions for 'their sovereignty, and such as the Sultan has made in grant- 'ing to English Companies the Railroads of Rustendje and of 'Smyrna. The right which it is pretended the Company would 'have of erecting fortresses is the most inexplicable of fables, 'and it is to me difficult to conceive how it ever gained belief. 'A power so excessive as that of erecting fortifications on 'a territory subject to a Government, independent and sovereign, 'such as that which results from the combination of rights gua- 'ranteed by treaties to the Viceroy of Egypt and his sovereign 'the Sultan, cannot be conceived unless from a clear and posi- 'tive text. Either it must be formally stipulated, or it does 'not exist. Now the deeds of concession declare precisely the 'contrary. The text of Article 4 of the First Deed of the 30th 'November, 1854 says. 'The canal works shall be executed 'exclusively at the cost of the Company. * * The fortifi- 'cations which the Government shall think fit to establish 'shall not be at the expense of the Company.' Thus the 'parts allotted to the two contracting parties are clearly 'determined; to the Company the cost of the works neces- 'sary to establish the passage; to the Government the right and 'the duty to guard and defend that passage. The company would 'consider its investiture with such rights as unfortunate and ridi- 'culous, as incompatible with its interest and safety. It under- 'stands very well that it cannot live in peace and sheltered 'from political contentions, except under the shadow of the 'neutrality of the passage which it wishes to create.

'As concerning the neutrality and the free use of the Canal 'H. H. the Viceroy (Art. 4 of the concession of 5th January '1856) solemnly declares for himself and his successors, under 'reserve of the ratification of His Imperial Majesty the Sultan, 'the Great Maritime Canal from Suez to Pelusium, and the parts 'dependent thereon, open for ever, as neutral passages to every 'merchant ship passing from one sea to the other, without any 'distinction or preference of persons or nations. It appears to 'us difficult to consecrate in terms more explicit the neutrality 'of the canal. But if all the guarantees by which the con- 'cession is surrounded are not thought sufficient, the company 'is ready to take part in all the efforts of diplomacy to make

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'them complete. All that European combination can effect 'towards this end will be received by the company with joy and 'gratitude. A London journal, which passes for the organ of 'the Prime Minister, renews again at this day the old manœuvre 'against the Suez Canal, which consisted in representing me as 'the instrument of a secret policy tending to the separation of 'Egypt from Turkey to the advantage of France; and to the 'detriment of the interests of Great Britain. In truth the canal 'could in no way serve to the realisation of such a project, for 'reasons which have been often given; but in any case why 'should France be suspected of desiring its accomplishment?

'It is very gratuitously and very falsely that the English 'papers assert that the policy of France has always tended to 'the separation of Egypt and Turkey. They cite, for example, 'what happened in 1840, in proof that France at that time urged 'on the Viceroy of Egypt to make himself independent of the 'Porte. This is a mistake. France obtained from the Viceroy 'his consent to arrest the march of his army on Constantino- 'ple, and on this condition it was agreed that he should keep 'Syria. More lately it was desired to take this territory from 'him. The Government of France has sought to maintain him 'there out of respect to the promises which had been made him; 'but the interposition of France had not the object of rendering 'him independent of the bonds of vassalage towards the Sultan, 'she had no interest in doing so. The steady policy of France 'for the last fifty years has consisted in assisting Egypt in the 'developement of its resources, and in the march of progress 'and civilization upon which a man of genius had started it; 'to her efforts alone is due the happy stipulation which made 'the Government of Egypt hereditary in the family of Mehemet 'Ali; an arrangement which would certainly not have been 'brought about by a power whose wish it was to weaken a part 'of the Ottoman Empire exposed at that time, in consequence 'of the anarchy and disorder which menaced it, to become the 'prey of the first occupant.

'In reality it is not to the interest of France that the terri- 'tories bordering upon the Mediterranean, should be broken up 'so as to fall into a state of weakness and isolation, for they 'would then be accessible to the influence of that political power 'which aspires to the command of the sea. Egypt detached 'from the Ottoman Empire would be without defence against 'the first maritime power. It would be the same, for example, 'with Sicily. France has no more interest in detaching Sicily 'from Italy than Egypt from Turkey. The whole advantage 'of such a separation would be obviously to Great Britain.

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'And, moreover, it may easily be approved that the Canal of 'Suez will actually prevent the establishment of any exclusive 'influence, and consequently of that which the English papers 'accuse France of being ambitious of. The opening of the 'Canal of Suez is about to create between the Mediterranean 'and the Red Sea something analogous to what nature has formed 'between the Mediterranean and the Black Sea—a Strait. Now 'it is the existence of the Strait of the Dardanelles; it is the 'national arrangement to which it has given rise which has 'saved Turkey, notwithstanding the superior power which she 'had to resist.

'The common interest of all nations to preserve the freedom 'of commercial navigation in the Strait of the Dardanelles, 'guards the independence of Turkey, assures the freedom and 'integrity of her territory.

'It will be the same with Egypt. The Canal of Suez will be 'a Strait inevitably placed under the protection of all the interests 'created by it. All the powers will necessarily be jealous to main- 'tain their rights of navigation and commerce. These rights 'when they have been regulated by special conventions, which 'like those referring to other Straits will be reckoned among the 'provisions of the laws of nations, will guarantee Egypt for the 'future against the establishment of any exclusive foreign in- 'fluence, and against all foreign occupation and domination.

'The Mahomedan states of the Mediterranean cannot hence- 'forth withdraw themselves from the movement of the civiliza- 'tion and from the superior enlightenment of Europe. The only 'means open to them of resisting the action of a single 'power, is to give to all the powers an interest in the preservation 'of the Empire, so that they may form a counterpoise, and may 'neutralise the effects of any policy over ambitious, and too much 'inclined to encroachment.

'It is now seen, according to these considerations, that France 'would not support the promoters of the Suez Cannal, if she en- 'tertained the design which is attributed to her of wishing to 'exercise any kind of preponderance in Egypt. If she really 'aspired to any such it is quite an opposite course that she 'should follow; and the English papers to be consistent with 'themselves, ought to promote with all their power the execution 'of the projected Canal, if they wish that Egypt should be safe 'from any predominant influence, and remain united to the Otto- 'man Empire.

'Let us now see what shonld be the principal features of that 'fresh addition to the conventions concerning Straits which 'France proposes, which the Company solicits, and which Eng-

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'land should necessarily adopt if her opposition is only dictated 'by the desire of maintaining the integrity of Turkey. It ap- 'pears to us that the following propositions might be taken as the 'basis of the convention we speak of:

'1*st*. To proclaim the entire freedom of the Great Maritime 'Canal from Suez to Pelusium, and free passage for every mer- 'chant vessel of whatever nation, on payment of the dues which 'shall be the same for all.

'This neutrality is already made sacred in principle in the deed 'of concession given by the Viceroy of Egypt, but as this deed 'of concession binds only the Viceroy and the Company, it 'would be necessary to make it the subject of an accord between 'the powers.

'2*nd*. It should be forbidden to vessels of war to pass 'through the Canal of Suez, without special authority from the 'local government.

'3*rd*. It should be formally forbidden to the Company to 'erect any defensive work, or any fortification, either at the en- 'trance or along the banks of the Canal, or on the lands on the 'Isthmus, of which it possesses the enjoyment; nor should it 'be able to establish colonies of cultivators without their be- 'coming subjects of the local government.

'4*th*. The ships passing through the Canal should not be 'allowed to disembark troops in the Isthmus, unless in cases of 'sickness, of scarcity, or disasters, and in this case it should be 'necessary to obtain the permission of the Viceroy, which 'should be limited to the accidental circumstances which we 'have just indicated.

'England is the country especially interested in this arrange- 'ment, because it is she who may have most frequently to claim 'the benefit of it.

'5*th*. The lands conceded to the Company should not be 'utilised except for agricultural purposes, and if it should hap- 'pen that the Company farm out, or alienate the whole or a part 'of its lands, it should be bound to do so with a single view to 'its financial interests, without respect of persons, and without 'distinction of nations.

'In America the land is made to pay the cost of the great 'public works. The concession of the lands granted (to the 'Company) with right of enjoyment, and not with sovereign 'right (which is quite another thing) is a necessary completion 'of the concession, and gives to the shareholders a double 'guarantee of profit. The use to be made of these lands being 'well defined, the possession of them cannot give umbrage to 'any one.

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'Finally, the enlightened and loyal prince who governs Egypt, 'who has given so many proofs of his fidelity to the chief of 'Islamism, to the sovereign of the Empire, is willing to admit 'to the Isthmus of Suez a garrison of Turkish troops, a condi- 'tion which has not been imposed on the territories compassed 'in the boundaries of Egypt by the Hati Sheriff of 1841, nor by 'the treaties by which the Five Great Powers have guaranteed 'the relative positions of Turkey and Egypt.

'Such are the principal precautions that may be adopted for 'dissipating even the pretext for uneasiness; they would estab- 'lish so clearly the sincerity of the Viceroy of Egypt, the un- 'selfishness of France, and the good faith of the Company, that 'no policy could reject them.

'The Company has always implored (*appéte de tous ses vœux*) 'an international agreement which, by guaranteeing the neutra- 'lity of the canal, will ensure to it liberty of action, will allow it 'to reach quickly its aim of general utility and will dispel even 'the shadow of a doubt as to its true character.'* (45 to 47).

We do not know whether these words of M. Lesseps have dispelled all doubt from the minds of those who watch with suspicion the movements of France in the East, but the House of Commons, in June 1858 resolved, and wisely resolved, that the 'power and influence of England ought not to be exerted to in- 'duce the Sultan to refuse his assent to the project of a canal 'across the Isthmus of Suez.' It was led to this resolution by the eloquence of Mr. Gladstone, and the authority of Lord John Russell, and of all nations England has most reason to hope that the work may be brought to a successful issue. Should England adopt a selfish line of policy, and oppose her private interests to the execution of a work of general utility, she would descend from her high position among nations, and undoubtedly such a policy would recoil on herself.

It appears to us that the comparison made by M. Lesseps between the Canal of Suez and the Dardanelles is both striking and true, and that the passage of the canal will necessarily be placed under the protection of the Laws of nations. If so, the words of the First Napoleon, when compelled to abandon the idea of himself executing this great work, 'that the Turkish 'Government would one day find in the execution of this pro- 'ject both its preservation and its glory,' may afford another proof of the marvellous penetration of that extraordinary man.

If now in closing our subject we cast a glance up the stream of time, we find that the modern politician and engineer can

* Exposé Général des faits. Par M. Lesseps.

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claim no originality of thought in regard to the advantages of connecting the Mediterranean with the Red Sea. But how remarkable is the proof which the modern Suez Canal will afford of the developement which the arts received since Herodotus stood by the Suez Canal of ancient days. The ancient canal commenced by Pharoah Necho, and completed, it is believed, by Darius Hystaspes, connected the two seas by means of the Nile. It followed the course, and probably did not exceed the dimensions of the fresh-water canal now proposed as an auxiliary to the larger work of modern days. When the present scheme is completed, the traveller will have the means of placing the one in comparison with the other.

The ancient work was appreciated and improved by the Ptolemies, and by their successors the Romans, at the commencement of their sway, but its disrepair and decay kept pace with that of the Roman power.

Under the vigorous rule of the earlier Califs its ruin was arrested, but it felt the decline of the Ottoman as it had done that of the Roman vigour, and about the ninth century of our era, was closed to navigation.

By the aid of European civilization and science, it is hoped to renew the work in vastly increased dimensions and enhanced splendour. May it be hoped, that as it indicated in its decay the decay of Oriental greatness, so in its revival it shall be an illustration, as well as the means of the greater glory which awaits the nations of the East, from their connexion with European civilization? If this should ever be; if M. Lesseps' plan should be as faithfully and successfully carried out as it is clearly enunciated, the man whose skill, perseverance and courage, have brought nations into unity to achieve this great work; who has faced obloquy, suspicion and ridicule, to bring it to a successful issue, will stand forth, even in this age of progress, as one of its greatest benefactors.

Appendix.

Approximate Statement furnished to me by M. de Lesseps of the Expenses of the Canal of Suez, up to the 1st December 1862.

"The report made to the General Meeting of the Shareholders, on the 1st May 1862, shows the general state of the account of receipts and expenditure up to the 31st of March of that year.

The expenses may be distributed as follows, in round numbers:—

		Francs.	Francs.	£
I.	Expenses prior to the formation of the Company, viz: drawings, travelling expenses, purchase of plant, &c.		2,900,000	116,000
II.	Land &c. — The Ouady Estate ..	2,000,000		
	Warehouses at Damietta	50,000		
	Ditto at Cairo	200,000	2,250,000	90,000

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APPENDIX.—*(Continued.)*

	Francs.	£
III. Furnishing Offices in Paris and Alexandria	100,000	4,000
IV. Interest paid to Shareholders	7,350,000	294,000
V. Ordinary expenses of management in France and Egypt, ...	3,500,000	140,00
VI. Personal expenses and salaries of Engineers	1,200,000	48,000
VII. General expenses of works, plant, Commissariat and Transport	22,500,000	900,000
Total expenditure up to 31st March	39,800,000	1,592,000
Say	40,000,000	1,600,000
At the present rate of carrying on the works, the necessaryexpenses of the Company are about 1,200,000 francs (£48,000) a month, which would give from 1st April to 1st December	9,600,000	384,000
Total expenditure to 1st December 1862.	49,600,000	1,984,000

From which is to be deducted:—

	Francs.		
I. The cost of land (which is recoverable)*	2,250,000		
II. The interest from temporary investments of funds in hand, which is added to the capital of the Company	6,500,000	8,750,000	350,000
Leaving the general expenses of management, purchases of plant, provisions, carriage, and works of every description up to 1st December 1862, in round numbers, at		41,000,000	1,640,000
The plant is represented in this sum by about	Francs. 8,000,000		
To which may be added the cost of construction of buildings, about	2,500,000	10,500,000	420,000
Net expenses in works & general charges		30,500,000	1,220,000

Delegated Administrator,
(Signed) T. DE CHANCEL.

Alexandria, 5th December 1862.

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* The Ouady Estate alone, let out to Arabs, has this year brought in to the Company a net revenue of 149,000 francs—£5,96[illegible].